ENVIRONMENTAL SERVICES UTILITY
BOARD MEETING AGENDA
Monday, May 16th, 2022
6:00 PM

I. Public Comments

II. Roll Call

III. Approval of Minutes

IV. Approval of Bills

V. Reports
- A Monthly Activity
- B Financials

VI. Old Business

VII. Unfinished Business

VIII. New Business
- A Salt Shed Repair/Replacement
- B I & I Bid Packet
- C Hydro Proposal – Sargant & Lundy
- D Acceptance of - Fuel Bid Award and Resolution
- E Acceptance of - 3 Dump Bodies Bid
- F First Draft - ESU Budget FY22/23
- G ESU Handbook Update FY22/23

IX. Executive Session (if necessary)

X. Adjournment

ENVIRONMENTAL SERVICES UTILITY
BOARD MEETING
APRIL 18TH, 2022
SUMMARY OF MINUTES

The meeting for Kankakee Environmental Services Utility was held on Monday, April 18th, 2022 at 6:00 P.M. in the Public Safety Building.

ESU Members Present
Mayor Chris Curtis
Clerk Stacy Gall
Ald Mike Prude
Ald Larry Osenga
Ald Danita Swanson
Ald Kelly Johnson
Ald Carmen Lewis
Ald Reginald Jones

Superintendents
Dave Tyson, PR, IPLS
Daniel Jay

Additional Alderman Present
Ald Lance Marczak
Ald Malone Marshall
Ald Victor Nevarez

ESU Staff Present
Zach Newton, GIS/Opers Mgr
Dennis Doyle, DPW Asst. Supt.
James Lopez, DPW Opers Mgr
Ryan McGinnis, Opers Mgr

MAYOR CURTIS: Good Evening everyone. Real quick, just some housekeeping. The microphones for the First Ward Aldermen work but all other Aldermen mics do not. We ordered the circuit boards that allow them to work. Two of them were ordered. It's my understanding they are not the right fit and they tried to fix those today. What we will do for tonight's meeting, our mic's work, and the department

heads work. I'll make sure that I repeat who makes the motion, who makes a second motion, if we need to talk or an Alderman needs to make a comment, we're going to have to go old school we'll just get the microphone in the middle and just carry that around for people that have some discussions and comments. Hopefully by tomorrow or Wednesday they'll have the circuit boards that are needed to fix all the all the Aldermen mics. You don't have to push the buttons tonight because you won't be heard. It's 6:02 P.M. we are going to call the Environmental Services Utility Board Meeting to order for Monday, April 18th, 2022. We'll begin with public comments. Do we have any public comments this point? Seeing none, we'll move on to roll call.

ROLL CALL

CLARA HALL:

Ald Lewis - Present
Ald Prude – Present
Ald O'Brien - Absent
Ald Osenga – Present
Mayor Curtis - Present
PRESENT: 8

Ald Swanson – Present
Ald Johnson - Present
Ald Jones - Present
Clerk Gall – Present

ABSENT: 1

APPROVAL OF THE MINUTES

MAYOR CURTIS: We have a quorum. Next, is Item three approval minutes. Is there a motion to approve the minutes of March 21st, 2022?

ALD OSENGA: So move there.

ALD SWANSON: Second

MAYOR CURTIS: Motioned by Alderman Osenga and seconded by Alderwoman Swanson. Any questions or comments or changes or additions to the minutes from March 21st, 2020? Seeing none, roll call?

CLARA HALL:

Ald Lewis - Aye
Ald Prude – Aye
Ald O'Brien - Absent
Ald Osenga – Aye
AYES: 7

Ald Swanson – Aye
Ald Johnson - Aye
Ald Jones - Aye
Clerk Gall – Aye
ABSENT: 1

APPROVAL OF THE BILLS

MAYOR CURTIS: The minutes are passed. Next, we'll move into item four which is the approval of bills. You should have in front of you the bills for

April 18th, 2022. Is there a motion for approval of bills in the amount of $673,497.20?

ALD SWANSON: I'll make that motion.

ALD OSENGA: Second

MAYOR CURTIS: Motioned by Alderwoman Swanson and seconded by Alderman Osenga. Are there any questions or comments about the bills? Alderman Osenga?

ALD OSENGA: Yes, Mayor. Check # 31812 Interstate Building. There's a number of bills and a number of credits. Is this a company that we use *(inaudible)*it's all in one check number.

MAYOR CURTIS: Mr. Lopez, these are all for DPW correct?

JAMES LOPEZ: *(inaudible)*

MAYOR CURTIS: There are quite a bit of credits here…so these are for the vehicles?

JAMES LOPEZ: (inaudible) yes.

MAYOR CURTIS: Does that answer your question? Okay, any other questions about the bills. Alderwoman Johnson?

ALD JOHNSON: *(inaudible – questions the cost of cleaning buildings)*

MAYOR CURTIS: Mr. Jay did put something together for cleaning services but we pulled back on that. The Library wants to talk about whether they will join in on that or not. Then we also want to get a base on what is currently being cleaned with the specs that will go out. One thing that we don't want to do is to have it cost more money. Yes, right now we do have a company that cleans the Depot and we have another company that cleans the Administration building, this building, Environmental Services (LeBeau) and DPW. These are he 4 buildings that they clean. I do know the administration building and public services public safety building, they do five days a week. I believe DPW is two or three times a week, and then ESU two times. It is something that is being worked on the lookout.

ALD JOHNSON: Thank you.

ALD CURTIS: Alderman Marczak?

ALD MARCZAK: (inaudible) is it in their current contract where it says that they come in and clean the bathrooms five times a week or you know?

MAYOR CURTIS: We're looking for that right now. That's something that I was going to knock on Clerk Gall's door for this week. Any other questions? We'll go to roll call.

CLARA HALL:

Ald Lewis - Aye
Ald Prude – Aye
Ald O'Brien - Absent
Ald Osenga – Aye
AYE: 7

Ald Swanson – Aye
Ald Johnson - Aye
Ald Jones - Aye
Clerk Gall – Aye
ABSENT: 1

MONTHLY ACTIVITY REPORTS

MAYOR CURTIS: Those are passed. Next, we will go into monthly activity reports. And we will start with the street and alleys.

JAMES LOPEZ: So, everything's pretty much in the report that I want to hit on a couple of things. We started tearing the fence down behind DPW over there on Oak & Fifth Avenue, going all the way around. We are waiting for the tiger mower to be delivered, which should be here in the middle of May and we're going to finish that up. Taking down the stuff with the tire mower. There's a lot more spots to use it in. We've usually have it for about two weeks and we moved the second excavator to Alpiner Park. We're going to start doing that between the Avis hotel and Alpiner Park to start tearing up the asphalt there and moving it back over there. So, that's all I got.

MAYOR CURTIS: So, the old Avis motel site where we got the old asphalt and everything we got somewhere that the city owns where the asphalt is there. We have an opportunity where we can bust up that asphalt. That's a site that we would sell to a developer or business that wants to go there but in-the-meantime, it just kind of looks a little rundown. So, we want to pull up the asphalt, put grass down there and make it look more aesthetically pleasing. Then we can use that material in some other areas of the city as fill area that we're working on. So hopefully duplication of some of our areas and he's Court Street there as I said Murphy's Law as soon as we put grass there somebody want to buy it and it's a good thing. But in the meantime, it has to be another two or three years before that's there it'll look a lot like the corner of without tree looks like the corner of Nelson and East Court Street where the schools that they're like Dr. King can be more pleasing and you come into town here. So, this is all being done in house and DPW is doing that

with their own labor. So, the same thing with Fifth Avenue too. They are cleaning that area up along there are several others that they're doing all in house. Alderman Jones?

ALD JONES: Yes. I would like to publicly thank, Lopez and how he's doing his job (inaudible).

JAMES LOPEZ: We appreciate that.

MAYOR CURTIS: Any other questions or result? Okay, thank you, sir. Next is the technical services report. Ms. Hall.

CLARA HALL: On the project that we have been working on for the last four weeks, we have been doing some upgrade, lighting to the library. All four floors. We chose to do the lighting on all four floors because it'll give us an opportunity to save on energy, it will provide cost savings as far as the above and in labor as well. We are changing out the bulbs and the ballots in the library. It's going to have a hefty savings to our budget. Each fixture takes four bulbs and a box of bulbs contain about 12 total at the cost per box is $350 and that will only take care of three fixtures. So usually throughout the year each year we've noticed that it's cost us $6,000 to $8,000 to change the bulbs at the library on an annual basis. On February 21st, we began to do a Com Ed rebate application process. We proceeded with a walkthrough which took pictures of the bulbs and the ballast. We had our local vendor to walk with us. We did lighting for the main areas, closets, bathrooms, hallways, storage areas and offices. They found that the two different lights were the T8's and T12's we counted a total of 545 fixtures in the library. We received a quote for the LED retrofit kits, and that quote was an amount of $38,920.90. We moved forward with the application process and submitted it to Com Ed. On March 9th. I received an email back from Com Ed stating that they have reserved the entire amount for the city of Kankakee for this project. The funds expire on June 7. I reached out to Superintendent Tyson asked for his permission and he made contact with Elizabeth as the Mayor regarding this project. We needed to get the lights right away so that we can make the deadline. We started this project on March 30th with three team members and we've been working four hours a day at the library. I'm pleased to announce that we will have this project completed this Friday. This puts us ahead of schedule. I am presently working on the post application for Com Ed. It will be submitted no later than next Wednesday the 27th and then we can move forward and get those funds reimbursed to the city of Kankakee. If we would have contracted this project out. It would have cost us $130 per hour per electrician plus

administration fees. So. in addition to being reimbursed for the lights, doing this project has saved well over $72,000. I would like to publicly thank our electricians: Kyle Rewerts and Eric Morris. Also, wan to thank two sewer crew members who took turns helping us out. Al Argento and Deshawn Taylor, gave us a hand throughout this project. I also want to publicly thank Zach for allowing them to help me with this project. I have arranged for the local vendor to pick up the bulbs to recycle them and the cost for recycling is $1000. I also want to thank James Lopez of DPW for giving us a hand. While we were focused on getting the library done ahead of schedule. I reached out to James at DPW so that I can get some miscellaneous items done for technical services, and he extended the hand of gentlemen from DPW and I just want to thank Zack and James for collaborating with technical services to get these projects done. Also, the next project is working on the cameras at the Administration building.

MAYOR CURTIS: Thank you they've done a good job of getting it done in a timely manner and the savings that it's gonna save on utility cost and more importantly, just to change the light bulbs they were just always mentioning all the light bulbs work which changing quite a bit there. So. thank you for everyone for doing that. So next, we have is our utility sewer services report.

ZACH NEWTON: We had a pretty good month to get some corrective maintenance done on our sanitary and storm lines a few miles. Because tonight seems like it's about I &I. I just want to call your attention to the picture. In routine checks, some of the sewer crew found a manhole that had a couple of holes in it leaking a lot of groundwater. I'm happy to show the video the picture just doesn't do it justice. But this has been fixed. This is a nice segue into Joe's presentation.

MAYOR CURTIS: Zack didn't show me the video last week. The picture is showing you there basically there was from two different sides the amount of water is almost like a half inch. It almost look like your kitchen faucet running constantly with water and in the picture groundwater is running on both sides. As we talked about before, the reason that we're doing this is one we have to analyze what needs to be done and two we're gonna fix all this but it's to reduce the flow going into our wastewater treatment plant. So, karma bills, each municipality based on flow that's coming into play. Well, this is a lot of groundwater that's just going into our sewer system that flows down at just extra cost that gets passed on to us by buttoning up all this excess water from groundwater just going

into it does not need to be treated. It won't be this year but we're hoping the next fiscal year that there'll be a substantial reduction and hopefully our flow charge that we're having paid going forward. But I think you know, Zach does have a pretty cool video if anybody wants to see it. It's about five seconds and I was shocked at how much water was running into one just particularly manhole. Do we have any questions? Thank you and next we'll have our laboratory lab services report. Are you going to touch base a little on the machine tonight?

RYAN MCGINNIS: Yes. Things in the Lab are running normally. In March we completed our MS4 sampling our first of the year. We have to do that four times a year. I do want to bring your attention to you by working on getting a bid for a piece of equipment that we're trying to replace, it's 20 years old about and it's roughly $100,000 as far as cost goes and for the process of trying to get some specifications on what we need to get that process are out there.

MAYOR CURTIS: Can you tell what this machine in 10 second layman's terms I guess what it does for us?

RYAN MCGINNIS: Yes, it basically allows us to run our samples. So, some of the samples will be run will be charged out to industries. We need this machine to be able to do that to bring an end to the city. So, this will be a project that will hopefully generate more revenue than cost.

MAYOR CURTIS: So, the analysis that was put together will show it's about a five year return basically so after five years they have a lifespan is about 10 to 15 years?

RYAN MCGINNIS: Yeah about 15 years, but we probably end up using it less than the average user. So, I'm hoping to get another 20 or so.

MAYOR CURTIS: So, we're open to the last at least 15 maybe 20 years but after five years, we do believe that it will be paid for the 100,000 that's being spent on it. And then that would be income net income over the next 10 to 15 years from our industrial users in measures, even though I think you mentioned your measure tool, a higher grade then we can currently do.

RYAN MCGINNIS: It's more accurate than the current technology we have. But then another thing we mentioned about the current piece of equipment we have, it's similar to the locks situation that I was talking about previously, that there's a part on that piece of equipment that if it were to break, we would be totally down and we wouldn't be able

to run that sample. So that part is on manufacturing. So, if that were to go down, then we would be kind of stuck there. And if that was the case, we figured it'd be about six months before we would recoup our costs if we want to replace it and set so only six months of downtime. And I'm not sure what the turnaround time is in terms of ordering a new piece of equipment. You know, if you were to go out according to this report, I would take a while to get that so just thought that it might be a good idea to replace that before.

MAYOR CURTIS: So, we call this an ICP machine, correct?

RYAN MCGINNIS: Yeah, that's correct.

MAYOR CURTIS: And the thought process here it's basically a tool for our sewer system. So, the recommendation was is to bring this to the committee of whole on Monday, for consideration is the sewer line item. We also have it on the KRMA agenda for this Thursday to discuss we're not sure it can be a whole city Kankakee discussion. Maybe there's a partnership within KARMA for it. We're going to discuss that whether that falls on there. So, but the discussion is tonight, it's something that is needed. Something that I will have a return for the city Kankakee, five years out. We do believe it would be ARPA eligible. So, we'll bring that to committee of whole on Monday night for discussion.

ALD MARCZAK: Are we using this in conjunction with Bradley and Bourbonnais and or is it exclusively for us?

MAYOR CURTIS: I may have to defer to Mr. Tyson. Can you elaborate on that? So right now, the city Kankakee does the lab testing for us is when you explain how it fits in with KARMA.

DAVE TYSON: They do the testing for KARMA too. They test the waters they test everything that comes in as far as all the waste and then they bill KARMA and so the machine serves both purposes. It's not only for the city of Kankakee, but it will be for all the outside users that uses our Lab.

MAYOR CURTIS: But it is the city of Kankakee lab services test. It's part of the ESU budget obviously our sewer services are our main income producer. So as part of that whole income stream for ESU any other questions? All right. Thank you sir. Next, we're going to go into item B which is our financials. Comptroller Kubal, would you like to lead us through that?

ELIZABETH KUBAL: Thank you, Mayor. We are at the obviously the 11-month points to the end of March. So, like in this budget, and we're getting that very clear picture of this fiscal year and most certainly, as you look through the trends, everything is still very, very strong. Expenses have been lower than expected, which is excellent. And we're very pleased with that. I have first page administration, as you can see, like 61.7% we have a couple of line items that we're going to look at for the budget as we're having those meetings as we speak, but nothing substantial whatsoever. sewer services at that 89.4%. Only a couple of line items possibly be looked at otherwise, those are very in mind the payments to KARMA we are on pace for the first page. Second page reporting over technical services and laboratory services once again well under that 92% with a very strong very, very pleased to like we have transferred all the money through the end of the mark for the bond amortization that we have to do. So that is caught up that is approximately as you see here. 187,500 per month and we will do the right number in the next fiscal year. On the last page, public works very strong. Again, everyone is everyone in the utility has done a great job this year managing the budget that we've set forth for them. The one concerning item in the ESU budget as we have talked about over and over again. It's certainly not expenditures, it is revenue, and we are watching those revenue numbers very closely. We are not lagging by much in this final month. We are lagging a bit. So, we have to be very particular with everything now that we have passed the rates. We will budget that according to where we've been this year. And we will also make sure that we get everything going, as far as, the revenue and all of that to make sure we have that aligned. So, that is the key part of this next budget. I can have a conversation. I know all the issue have been working on their individual budgets have been working with Dan or their individual budgets. Dan and Dave have met one time, many conversations we're meeting again here pretty shortly to get that all like outlined for you and we will certainly be able to get that passed and hopefully that we May timeframe. Any questions?

ALD OSENGA: Under Space Center 151. Are we still paying rent for that property?

NEW BUSINESS

MAYOR CURTIS: As of March 31, that was our last payment. So, this is the first month we haven't had to pay. Any questions? Thank you. Okay, we have no old business. We have no unfinished business. And we're gonna move into item eight, which is new business. The first line item there is item A. An appointment of Clara Hall, Technical

Service Operations Manager. We're gonna have to pull back we actually need to in speaking with different people, we have to change the handbook first before we can do anything in the department there so the handbook has been changed with the ESU Handbook by this committee since I believe 2018. Late 2017-18. Yeah. So, what we're going to do is we're going to talk to we need to pull back the handbook, look at all that make all the changes that need to be and bring them back to this committee. To make change recommended changes this committee before we can move forward on any other items that are so. So that item will keep under unfinished business going forward. But we'll bring back recommendations for the handbook to make sure that we're doing everything accurately and per the code that we need to because we can't change titles without changing the handbook first. Item B is the acceptance of the bid. We did have a bid opening for five station pumps. Dan, can you handle that? So that the recommendation is we did have a bid opening. I will let Dan explain the bid opening when we had there. Again, this is something that we would like to… if you remember we did order pumps about 60 days ago. It's an emergency to get those in it takes some time to get these in. These are two pumps that are almost out and then we have five other lift stations that are kind of on their last leg. The recommendation is to take this bid to ARPA on Monday and also have a discussion throughout the funding but Dan if you can talk to us about the bid opening.

DAN JAY: We only came back with one bid *(inaudible).*

MAYOR CURTIS: So, we accept this and take this to ARPA for consideration if it passes over the committee of all the city council that would approve of the city council and that would be approximately 15 lift stations that means the two we ordered and these five and we have about half of those stations up to par. So, is there any questions? I guess because we did have a bid. So is there a motion to accept the bid of $149,483.39 and present that to the committee of whole for consideration.

ALD JONES: So move.

ALD OSENGA: Second.

MAYOR CURTIS: Motioned by Alderman Jones and seconded by Alderman Osenga. Are there any questions or comments? Roll call.

CLARA HALL:

Ald Lewis - Aye
Ald Prude – Aye
Ald O'Brien - Absent
Ald Osenga – Aye
AYES: 7

Ald Swanson – Aye
Ald Johnson - Aye
Ald Jones - Aye
Clerk Gall – Aye
ABSENT: 1

MAYOR CURTIS:

We will send to the committee of whole for consideration. Next, we have some presentations. We're going to have MS4 presentation, I&I that I studied that you've approved, and then the Road Study presentation that will be happening. So I'm going to ask different representatives from Robertson Engineering to come up here. I will make you open mics and they're going to give us some brief presentations on some of the work that has been done and what you've allocated to funding.

ITEM A: MS4 PRESENTATION

DANA WEST:

Right, thanks very much. Okay, my name is Dana West. I'm about us. And engineering. We're going to talk a little bit about stormwater tonight. Formerly program we're talking about is NPPs. Phase two. I've been working with Dan and Zack and your whole team on this project for a little while now and you're kind of coming in and out of different pieces. One of the required components of the program is that there is a public meeting. We find that through regularly scheduled meetings is actually an easy way to accomplish that have been doing them because of COVID. Like we're so glad to be here and be a part of your program. NPDS stands for National Pollutant Discharge Elimination System and PDS can have up refer to both wastewater and stormwater. Today we're just going to be talking about stormwater. So what does it basically mean? It basically means keeping everything that's not stormwater out of your stormwater system. We are looking for pollutants we're trying to keep pollutants out of your major water within the cities such as the river and all the other major water sources but also all of the minor stormwater components of your system as well. Such as storm sewers, ditches, stormwater basins everywhere that storm water goes where it falls after it rains basically, is within your storm sewer system and this program covers. Why do we have to do this? Well back in the 1970s, the Clean Water Act was enacted and periodically through time USEPA actually increases requirements. The two is actually administered by the state and so the state actually filters requirements and sets are recording and other specific requirements that we all have to do as a municipality since 2003. We've had some formalized documentation, every community that

is supposed to be working on this program, same conditions that they have to perform. So, there are six minimum patrol major categories. So, I worked out a little bit there on the top but a lot of a lot of girl that we're just gonna go over this very, very briefly. may have a little bit. There's a lot of different things that we need to do here under the program. We're just going to do a brief overview tonight. The first thing that we have to do the first category is public education and outreach purposes for a city to get information out to property owners in the general public so that they can learn more about what the cause of problems there. There's also some specific documentation like annual reports and things that we have posted. On our website as well. Other examples of public education and outreach from time to time, things about recycling are also passed up to your property owners and so keeping your waste in the in the garbage cans in the landfills, just keeping it out of your storm system. So again, just another example of what kind of outreach counts for this program. Participation as I mentioned tonight is public meeting is one of the required elements program. Other ways that the public participates on the program is to collect leaves and branches and things like that that are picked up by different entities within the city. There Is also cleanups, I understand that there used to be a river, all of those elements we can take credit for and then the SDGs phase two program. Illicit discharge detection and elimination is basically a real fancy term for keeping non-stormwater out of the stormwater system. One of the examples we're talking about here tonight, up on the screen, there are pictures about faults. These are not insane. These are all examples of what we don't want to see. And the top left picture you'll see something that looks a little fuzzy, but there's some sort of soap discharge and that iPhone, basically this is where the storm stores come out to a creek or a river. And the right is a very extreme example of something bright orange and this is something you don't see. And then upon right picture you can see that the shorelines are broken and so that sediment is going into the ponds all things that we check in periodically for Team checks in on to make sure that these issues are identified and remedied as soon as possible. Construction Site runoff control before any project goes to construction. There are a lot of different requirements that are handled on paper you're permitting and then ultimately once they're constructed, you probably have all seen the black fence that surrounds sites and the most obvious example that contains sediment and debris from flowing off the construction site. Those sites also need to be constructed inspected periodically until construction is completed. Post construction is just that it's kind of a real somewhat close follow up to the previous category. Prior to wrapping up contracts with contractors or handing

occupancy permits over for brand new developments. There's a whole lot of inspections that have to happen. There are also other best management practices like permeable pavers bioswales and things like that that will help treat the water long term before it actually goes into storm sewer. Pollution Prevention, good housekeeping is the last category but not least, this is the category that keeps your team very busy all year round. You can see some examples there: street sweeping, cleaning up catch basins and doing inspections to make sure that any obvious problems can be eliminated. It also involves a path to debris managing all that from your own city sites and also repairing the storm sewers as best you can. So what else goes into this program? I like I said there's a whole lot of documentation is a big thing that I get pushes for so most guys and especially here in the city, you have a great team that's doing a lot of the things that were supposed to do. My help and my role is actually to help provide some ease for documentation and forms. check in and say well, here's what other municipalities are doing. So, I'm trying to stay on par with the with the expectation IEPA. We have annual reports that are due June 1 every year. There are also periodic inspections which are kind of come and go we actually just survived one not too long ago so that should be good for a while and we are actually expecting some updates on the permit from IEPA. At some point now, they're actually a little behind schedule. So, there could be some updates to the different activities that are included. With that a with a good overview on it to see if anybody has any questions about the stock market clients program. Thank you.

ITEM B: I&I PRESENTATION

JOE SULLIVAN: Good evening. Go solving the problems and engineering that we'll be talking a little bit of a progress update on the I&I program that was approved end of February beginning of March Kankakee sewer investigation and rehabilitation program in lower Riverview. So, these are the program components we had our project kickoff meeting at the end of March. The manual inspections are roughly 50% complete today. CCTV clean and TV bid package is about 95% we plan to submit that to staff this week for review and then put that off for advertisement. The CCTV observation review and analysis manual rehab and sewer lighting programs. Parts of the program are all still at 0% that hasn't we haven't gotten to that stage and prep project management. We're roughly at about 15% complete. So just to kind of touch on the manhole inspection components so each manhole is you see on the left we're documenting the condition of the cover the lid, the frame, the adjustment or chimney section of the manual, the wall, the barrel,

the bench channel and trough and we're looking for structural integrity, as well as any I&I coming into the system. And we are using a mobile form out there. So, everything we're doing we're collecting digitally on tablets, and that's going through the cloud and to our servers, our database that we are hosting and showing that to staff live as we go. So, I did record a short video of the web dashboard as we call it and you can see the manual inspection data as it's coming in live. So that's kind of a screenshot of it. Here's a little video just kind of walking through some of the components so it's all tied to GIS you can see right now I'm panning around the lower river view area, clicking on the map zooming in a click on the manual, it'll pull up the inspection record. As you scroll down through the records, it's kind of hard to see but all the data that we collect was there there's four photos minimum per structure. So we take a cover photo and area photo, a manhole frame photo and then a top side looking down photo into another part we actually did come across a manhole that we found was surcharge during the time of inspection so that means there's a blockage downstream of the location you can see the standing water in the manhole so we had that did Zach I guess you and he notified his crews came up we're able to preventatively jet the sewer before any backups occurs that was a great find out before somebody was getting a sewer backup. You can turn on the ortho photos from the city key and see all this within aerial background. Some of the mammals that were expecting and lower river view are actually in the river. So, I don't know if any of you have driven bank see this structure before but that's the sanitary sewer manhole in the Kankakee River so it's pretty important to look at an excessive infiltration and flows coming into it. We did see this one had been read repaired two years ago. We did see a slight crack where some drops are coming in. So that'll be at a touch up list to fix that up. But that's kind of a quick overview of the dashboard that was available live during the during the project. So, like I said, we're at roughly 53% of the manholes inspected today. Of the system manuals. The study area that we're working in is basically 13% of the total of the total system. So, you have 87% still remaining after this Riverview portion of that 13% that we've inspected or of the 50% of the 13% that we've inspected. We found about 86% of those mammals have at least one defect that will need to be repaired so only 14% We can look at it and walk away and say there's nothing at all wrong with this manhole. Those interesting with the manholes in the in the floodplain, on the right on the river bank, they are subject to flooding so it's important to look at these. This one we looked at the interior it was fine there was no defects at all on the interior. But the exteriors you can kind of see here is the outside of more voting is falling apart this loose break in there. There's a cover that

allows flow into the top. You know this is right on the river banks of the river swell up and down. We could basically watch this man always break this middle part. So that's something that we've noted and it will be repaired. Some additional manual defects and typical ones include the frame adjustment and the chimney area. This is all subjected to freeze thaw during the winter months. This is also very subject to inflow during the wet spring months. So those are usually the first parts of the man home to deteriorate. Roots coming into the manholes, this shows a route coming in through the manhole wall and roots coming in all love or hate skills. So that's another spot where root growth can penetrate through and fall and kind of tear it apart over time and also allow infiltration into the manhole causing for deterioration. So, this is really the start of a program but it's a really good program start that you guys are doing. On the storm of storm sewers that are have water intrusion are literally injectables like a polyurea. You know where you know you can completely repair you know the system and you know…I got that binder. I absolutely can. For the sanitary sewer there is polyurea liners for the interiors of the manholes. There's messages coating that's often recommended that basically excludes any excavation for that. There's also chemical grouting that you can do so if there's active infiltration into the manhole you can come full grout through the manhole wall to the outside and create a buffer around that manhole to prevent I think is infrastructure as well. And we'll be looking at all those types of repairs and making those recommendations and reviewing that the staff for that attack this goes out. We have one for sure as well.

KEITH MULHOLLAND: I'll be discussing on the pavement analysis program. So, this program will evaluate the roads in industry standards. Its software is called the paver pavement maintenance management systems Say that five times fast. The Department of Defense originally created the software back in the 70s so that the government could evaluate and maintain it systems. Since then it's been used by different military organizations, state and local agencies. So, you can key as 140 miles of roadways in the minds of alleys evaluated. White conducted pain analysis so you can get the objective analysis of all the roads and alleys in town. We will evaluate this on a ward by ward basis and present that result and we'll also look at the city as a whole so you can have it both ways. Whichever way, the city will decide to move forward with future maintenance programs. This can be used for long range budget programs you can create multi-year plans for the budget and come up with diagrams, some communities that are five-year plans on your website so that when people call, why have the ministry been taken care of this year? You're in two years or three years down the

road? Is that the tool that you guys could use? That also allows you to potentially save money by doing rehab rehabilitation projects versus reconstruction projects. So, for every dollar you spend on a rehabilitation, it's going to be about $5 or more than reconstruction. So potentially the roads before they become a problem will actually save the city money in the long term. The program comes out with a pavement condition index PCI and every street and alley block could be rated between zero and 100. Zero was a failed payment that requires reconstruction. 100 is the new pavement or recently reconstructed pavement. There's 20 Distressed news out talking about last minute and between 50 and 65 what they call your critical range and they'll talk about that and then this is an example of let's just pick a distress type would be one of the…use the distressed quantity is easy to think of how many cracks there are in a given city block or alley block. And then the trust severity is how bad those cracks are. They can be hairline cracks, or they can be wider cracks for the asphalt or concrete it's actually starting to shift and those 20 categories go into scoring to the right which is too small to read. The green is between 85 and 100 which is excellent pavement environment greater zero to 10 which requires reconstruction. The black line on this just shows a typical pavement lifecycle. On the left is at 100 which is new pavement and it starts to deteriorate over the first couple of years. That's where you find your weak spots, road cracks or some hospitals might develop in the first few years. But then that line levels out and becomes more horizontal and that's it within your payment lifecycle. That orange line is at that 65 PCI score. And that's considered your critical period. After that the roads start to deteriorate more and more rapidly. The different colored lines at the top are just different rehabilitation methods that can be done. The further left on this line you catch it the cheaper the repairs are crack sealing base and surface treatments. When you get to the point where your payment requires major reconstruction that for your costs are oftentimes four or five times more with like a crack seal program. So, we completed with an analysis like this from the village of Bradley a few years ago, and this was just showing an example of a five-year program estimating the blue bars in the front are if the bills were to do nothing their payment. average score for the entire community was about 53 and it's gonna do great a couple of points a year if they spend no money on it. The red bars in the back represent if they were to spend 2 million a year to try and keep it closer that 53 It does look a little bit over five years. This was another example for Bradley if they wanted to stay at a level which is within that above that orange, critical line they're spending about 3 million a year. The dark colors in the back is a spectacular year that you get all the

streets to it over an 80 by 85 score. That's excellent pavement. We're not recommending or suggesting that the community spent that much money to get to the most of that condition, but it was just an example to show what it would take for them and they wanted to have virtually new streets throughout their community. So, the timeline for the project the council approved this in March and we partnered with pipe research associates ARA, they have a vehicle that will come out and dry the streets between this month and next month. All the streets and all the alleys they take cameras, they take pictures they use lasers to check cracks and dents in the day map. Then they run that through the favorite software program and give that to us. We do American analysis on that and then later this year, we'll come back and make another presentation to the Council of our findings.

ADJOURNMENT

MAYOR CURTIS: There's no there is no need for an executive session tonight. Is there any questions or comments before we adjourn? Motion to adjourn.

ALD PRUDE: So move.

ALD JONES: Second.

MAYOR CURTIS: Motioned by Alderman Prude and Seconded by Alderman Jones. All in favor?

ESU BOARD: Aye.

MAYOR CURTIS: Opposed? Thank you, everyone.

ENVIRONMENTAL SERVICES UTILITY
ACCOUNTS PAYABLE

May 16, 2022

CHECK#	DATE	VENDOR	DESCRIPTION	AMOUNT	ACCOUNT
31916	5/16/2022	A TOUCH OF GLASS CLEANING	@FY22@ DEPOT/APR CLEAN	1,645.00	51.20.527
31917	5/16/2022	ALAN TORONJO	@FY22@ UNIFORM REIMB	59.49	51.20.518
31918	5/16/2022	ALL POWER EQUIPMENT	@FY22@ MOWER REPAIR	9.08	51.20.502
31919	5/16/2022	ARAMARK	@FY22@ UNIFORMS 4/27	36.67	51.20.518
31919	5/16/2022	ARAMARK	LAB COATS 5/4/22	36.67	51.20.518
			CHECK TOTAL	73.34	
31920	5/16/2022	AUSTIN BOYD	@FY22@ UNIFORM REIMB	168.88	51.20.518
31921	5/16/2022	BARON HUOT OIL COMPANY	@FY22@ FUEL	31,421.39	51.162
31922	5/16/2022	BEAUPRE INC.	@FY22@ TOW 4/18/22	300.00	51.50.572
31922	5/16/2022	BEAUPRE INC.	@FY22@ SAFETY CHECK	54.00	51.50.572
31922	5/16/2022	BEAUPRE INC.	@FY22@ SAFETY CHECK#14	36.00	51.20.572
			CHECK TOTAL	390.00	
31923	5/16/2022	BEST ONE TIRE & SERVICE	@FY22@ SKIDLOADER TUBE	64.95	51.20.572
31924	5/16/2022	C V WELDING	@FY22@ FUEL TANK REPAIR	120.00	51.50.572
31925	5/16/2022	CHRISTIANSEN AUTO PARTS	@FY22@ TRAILER BRAKEAWAY	64.95CR	51.20.572
31925	5/16/2022	CHRISTIANSEN AUTO PARTS	@FY22@ SOCKET SET	16.29	51.20.502
31925	5/16/2022	CHRISTIANSEN AUTO PARTS	@FY22@ 4180 ANTIFREEZE	49.49	51.20.572
31925	5/16/2022	CHRISTIANSEN AUTO PARTS	@FY22@ 4180 TS2/SEAT BLT	84.64	51.33.572
31925	5/16/2022	CHRISTIANSEN AUTO PARTS	4180/OIL, GENERATR PARTS	19.86	51.20.572
			CHECK TOTAL	105.33	
31926	5/16/2022	COMED	@FY22@ 9117143011 3/30-4	169.91	51.20.551
31926	5/16/2022	COMED	@FY22@ 3251141011 3/24-4	118.02	51.20.551
31926	5/16/2022	COMED	@FY22@ 0094099073 3/30-4	1,312.74	51.20.551
31926	5/16/2022	COMED	@FY22@ 0128159053 3/30-4	704.37	51.20.551
31926	5/16/2022	COMED	@FY22@ 0141163037 3/30-4	285.28	51.20.551
31926	5/16/2022	COMED	@FY22@ 0207105128 3/30-4	341.69	51.20.551
31926	5/16/2022	COMED	@FY22@ 0458025048 3/30-4	382.03	51.20.551
31926	5/16/2022	COMED	@FY22@ 0416085008 3/30-4	239.72	51.20.551
31926	5/16/2022	COMED	@FY22@ 0298092065 3/30-4	241.70	51.20.551
31926	5/16/2022	COMED	@FY22@ 0134067011 3/30-4	239.42	51.20.551
31926	5/16/2022	COMED	@FY22@ 0063043121 3/30-4	161.86	51.20.551
31926	5/16/2022	COMED	@FY22@ 1360457004 4/5-5/	688.32	51.20.551
			CHECK TOTAL	4,885.06	
31927	5/16/2022	CONNOR COMPANY	FLUSH VALVES-PSB TOILETS	692.74	51.20.577
31927	5/16/2022	CONNOR COMPANY	CRIMP AND PIPE	34.23	51.20.577
			CHECK TOTAL	726.97	

31928	5/16/2022	CONSTELLATION NEWENERGY	@FY22@ 3/30 - 5/2	4,084.59	51.20.551
31929	5/16/2022	DAVID TIBURTINI	UNIFORM REIMBURSEMENT	279.35	51.50.502
31930	5/16/2022	DEPKE GASES & WELDING	@FY22@ CYLINDER RENTAL	93.00	51.50.522
31930	5/16/2022	DEPKE GASES & WELDING	@FY22@ CYLINDER RENTAL	18.60	51.20.502
			CHECK TOTAL	111.60	
31931	5/16/2022	DOUGLAS BORN	ANNUAL TOOL ALLOWANCE	500.00	51.50.502
31932	5/16/2022	ENVIRONMENTAL EXPRESS	@FY22@ TSS FILTERS	1,302.11	51.40.502
31932	5/16/2022	ENVIRONMENTAL EXPRESS	@FY22@ FILTERMATE	937.31	51.40.503
			CHECK TOTAL	2,239.42	
31933	5/16/2022	ENVIRONMENTAL RESOURCE ASSOC	@FY22@ DMR QA	2,120.90	51.40.529
31934	5/16/2022	EUROFINS ENVIRONMENT TESTING	@FY22@ TESTING 3/22/22	967.50	51.40.522
31934	5/16/2022	EUROFINS ENVIRONMENT TESTING	@FY22@ TESTING 4/12/22	617.50	51.40.522
31934	5/16/2022	EUROFINS ENVIRONMENT TESTING	@FY22@ TESTING 4/19/22	760.00	51.40.522
			CHECK TOTAL	2,345.00	
31935	5/16/2022	FASTENAL COMPANY	@FY22@ CARTRIDGE	24.66	51.33.502
31935	5/16/2022	FASTENAL COMPANY	@FY22@ SWEATSHIRTS	157.55	51.20.518
31935	5/16/2022	FASTENAL COMPANY	@FY22@ DRILL, TOGGLER	349.79	51.33.502
			CHECK TOTAL	532.00	
31936	5/16/2022	FIRST AUTO COLOR	@FY22@ RESPIRATOR	16.29	51.50.572
31937	5/16/2022	FISHER SCIENTIFIC	@FY22@ SILCA GEL, HCl	1,378.74	51.40.503
31937	5/16/2022	FISHER SCIENTIFIC	@FY22@ NITRIC ACID TRACE	215.88	51.40.503
31937	5/16/2022	FISHER SCIENTIFIC	@FY22@ CULTURE TUBES	358.30	51.40.502
			CHECK TOTAL	1,952.92	
31938	5/16/2022	GASVODA & ASSOCIATES	TRANDUCER, SURGE PROTECT	918.30	51.20.502
31939	5/16/2022	GENERAL OIL EQPMT. & SUPPLIES	@FY22@ MOISTURE DRAIN	150.00	51.50.502
31940	5/16/2022	GEORGE SPIESE	ANNUAL TOOL ALLOWANCE	500.00	51.50.502
31941	5/16/2022	GORDON ELECTRIC SUPPLY	@FY22@ CONNECTOR, TIES	86.66	51.33.503
31941	5/16/2022	GORDON ELECTRIC SUPPLY	@FY22@ COUPLER,BOX	216.74	51.33.503
31941	5/16/2022	GORDON ELECTRIC SUPPLY	@FY22@ CONDUIT,CLAMPS	188.82	51.33.503
31941	5/16/2022	GORDON ELECTRIC SUPPLY	@FY22@ LED BEAM ANGLE,	175.72	51.33.502
31941	5/16/2022	GORDON ELECTRIC SUPPLY	@FY22@ BOX,LAMPHOLDER	182.74	51.33.503
31941	5/16/2022	GORDON ELECTRIC SUPPLY	@FY22@ PANEL,CONNECTOR	434.85	51.33.502
31941	5/16/2022	GORDON ELECTRIC SUPPLY	PORT BAR	22.85	51.33.502
31941	5/16/2022	GORDON ELECTRIC SUPPLY	HEAT SHRINK,COMP SPLICE	247.85	51.33.502
31941	5/16/2022	GORDON ELECTRIC SUPPLY	SWIVEL MOUNT	14.06	51.33.503
31941	5/16/2022	GORDON ELECTRIC SUPPLY	COUPLER, WIRE, TIE,STRAP	482.02	51.33.502
			CHECK TOTAL	2,052.31	
31942	5/16/2022	HOLOHAN HEATING & SHEETMETAL	@FY22@ DPW HVAC REPAIR	678.63	51.20.577
31942	5/16/2022	HOLOHAN HEATING & SHEETMETAL	@FY22@ DPW HVAC MAINT	681.00	51.20.577
			CHECK TOTAL	1,359.63	
31943	5/16/2022	HOVE BUICK GMC	S10/KNOB	44.24	51.50.572

31944	5/16/2022	INTERSTATE BILLING SVC INC	@FY22@ S18/COOLER KIT	2,433.58	51.50.572
31944	5/16/2022	INTERSTATE BILLING SVC INC	@FY22@ S18/ENGINE COVER	1,057.64	51.50.572
31944	5/16/2022	INTERSTATE BILLING SVC INC	@FY22@ S18/HOSES	200.90	51.50.572
31944	5/16/2022	INTERSTATE BILLING SVC INC	@FY22@ S18/OUT SIDE CAB	150.00	51.50.572
31944	5/16/2022	INTERSTATE BILLING SVC INC	@FY22@ S18/FLOOR MATS	755.00	51.50.572
			CHECK TOTAL	4,597.12	
31945	5/16/2022	KANKAKEE ACE HARDWARE	@FY22@ RETURN FROM186629	25.87CR	51.33.502
31945	5/16/2022	KANKAKEE ACE HARDWARE	@FY22@ RETURN FROM188348	3.36CR	51.20.572
31945	5/16/2022	KANKAKEE ACE HARDWARE	@FY22@ RETURN FORM188597	0.82CR	51.20.572
31945	5/16/2022	KANKAKEE ACE HARDWARE	@FY22@ RETURN FROM188597	19.58CR	51.20.577
31945	5/16/2022	KANKAKEE ACE HARDWARE	@FY22@ 2 X 8 X 12	55.98	51.20.502
31945	5/16/2022	KANKAKEE ACE HARDWARE	@FY22@ RETURN 2X8X12	55.98CR	51.20.502
31945	5/16/2022	KANKAKEE ACE HARDWARE	@FY22@ 2X122X10	36.58	51.20.502
31945	5/16/2022	KANKAKEE ACE HARDWARE	@FY22@ DRILL BITS	96.90	51.50.572
31945	5/16/2022	KANKAKEE ACE HARDWARE	@FY22@ PAINT ROLLER,COVR	167.83	51.50.502
31945	5/16/2022	KANKAKEE ACE HARDWARE	@FY22@ DRILL BITS,SILCNE	33.75	51.33.502
31945	5/16/2022	KANKAKEE ACE HARDWARE	@FY22@ SUMP PUMP ADAPTER	4.59	51.20.502
31945	5/16/2022	KANKAKEE ACE HARDWARE	@FY22@ MORTAR MIX	6.99	51.20.502
31945	5/16/2022	KANKAKEE ACE HARDWARE	@FY22@ SPADE DRAIN	30.71	51.50.502
31945	5/16/2022	KANKAKEE ACE HARDWARE	DPW/FLUSH LEVER	7.29	51.20.577
31945	5/16/2022	KANKAKEE ACE HARDWARE	DEPOT/CONNECTOR,FASTENRS	6.12	51.20.577
31945	5/16/2022	KANKAKEE ACE HARDWARE	PAINT, PAINT SUPPLIES	572.60	51.33.502
31945	5/16/2022	KANKAKEE ACE HARDWARE	SINKHOLE REPR/GRASS SEED	18.23	51.20.577
31945	5/16/2022	KANKAKEE ACE HARDWARE	PLYWOOD FOR BOARDUPS	1,499.75	51.50.502
31945	5/16/2022	KANKAKEE ACE HARDWARE	ADMIN/COMPUND, LTX FLAT	34.82	51.20.577
			CHECK TOTAL	2,466.53	
31946	5/16/2022	KANKAKEE DEVELOPMENT CORP	@FY22@ DEPOT,DWNTWN MLCH	1,700.00	51.20.577
31946	5/16/2022	KANKAKEE DEVELOPMENT CORP	@FY22@ DEPOT MOWING-APR	470.00	51.20.577
			CHECK TOTAL	2,170.00	
31947	5/16/2022	KANKAKEE RIVER METROPOLITAN	OPERATIONS,MAINT-MAY	240,833.00	51.30.553
31947	5/16/2022	KANKAKEE RIVER METROPOLITAN	OWNERSHIP-MAY	189,782.00	51.30.553
31947	5/16/2022	KANKAKEE RIVER METROPOLITAN	BOND DEBT SERVICE-MAY	69,292.00	51.30.553
			CHECK TOTAL	499,907.00	
31948	5/16/2022	KANKAKEE TRUCK EQUIPMENT	@FY22@ TRUCK HOPPER	19,808.00	51.50.502
31948	5/16/2022	KANKAKEE TRUCK EQUIPMENT	@FY22@ TRUCK HOPPER	18,835.00	51.50.502
			CHECK TOTAL	38,643.00	
31949	5/16/2022	LAI LTD	@FY22@ STONE ST/SENSORS	1,393.75	51.20.502
31950	5/16/2022	LAWSON PRODUCTS, INC	@FY22@ DRILL BITS,NUTS	364.37	51.50.502
31950	5/16/2022	LAWSON PRODUCTS, INC	@FY22@ HEX CAP SCREW	44.71	51.50.502
			CHECK TOTAL	409.08	
31951	5/16/2022	MENARDS #30930262	@FY22@ CONDUIT, ADAPTER	205.52	51.50.502
31951	5/16/2022	MENARDS #30930262	@FY22@ COUPLER,SCH80	6.70	51.50.502
			CHECK TOTAL	212.22	
31952	5/16/2022	MENARDS #30930322	@FY22@ TRIM KIT,HANDLE	68.97	51.20.502
31952	5/16/2022	MENARDS #30930322	@FY22@ BOLT,NUT,WASHER	15.25	51.20.502
31952	5/16/2022	MENARDS #30930322	@FY22@ TV BRACKET	49.99	51.33.502
			CHECK TOTAL	134.21	

31953	5/16/2022	MICKEYS LINEN & TOWEL SUPPLY	@FY22@ 3907/ESUE SVC4/26	52.16	51.20.518
31953	5/16/2022	MICKEYS LINEN & TOWEL SUPPLY	@FY22@ 3908/ESUW SVC4/26	50.00	51.20.518
31953	5/16/2022	MICKEYS LINEN & TOWEL SUPPLY	@FY22@ 301867-UNIFRM4/26	73.48	51.50.522
31953	5/16/2022	MICKEYS LINEN & TOWEL SUPPLY	@FY22@ 5321/PSB SVC4/26	64.00	51.20.518
31953	5/16/2022	MICKEYS LINEN & TOWEL SUPPLY	@FY22@ 5210/ADM SVC4/26	50.00	51.20.518
			CHECK TOTAL	289.64	
31954	5/16/2022	OSCAR MEDINA	@FY22@ UNIFORM REIMB	268.41	51.50.502
31955	5/16/2022	PACE ANALYTICAL SERVICE	@FY22@ MO SLUDGE TESTS	250.00	51.40.522
31956	5/16/2022	PRAIRIE STATE TRACTOR	CHUTE, V-BELT	303.08	51.50.572
31957	5/16/2022	PROTECTION ASSOCIATES	STONE ST/FIRE ALRM 6/1-8	180.00	51.20.522
31958	5/16/2022	QUILL CORPORATION	@FY22@ 1059145/INK	157.98	51.33.502
31959	5/16/2022	R & R INC	@FY22@ MOVE EQUIP 4/18	255.00	51.50.522
31960	5/16/2022	RAY HALL	ANNUAL TOOL ALLOWANCE	500.00	51.50.502
31961	5/16/2022	REED'S RENT ALL & SALES	@FY22@ TRENCHER,TRAILER	134.71	51.50.522
31962	5/16/2022	RID-ALL PEST SOLUTIONS	@FY22@ PEST CTRL 4/11	37.00	51.50.522
31963	5/16/2022	RIVERSIDE WORKFORCE HEALTH	@FY22@ PHYSICAL 4/14/22	105.00	51.50.522
31963	5/16/2022	RIVERSIDE WORKFORCE HEALTH	@FY22@ NH PHYS 4/26,4/27	315.00	51.50.522
31963	5/16/2022	RIVERSIDE WORKFORCE HEALTH	@FY22@ NH PHYS 4/26	105.00	51.33.502
			CHECK TOTAL	525.00	
31964	5/16/2022	RON O'CONNOR	@FY22@ ASPHALT,DIRT	3,600.00	51.50.502
31965	5/16/2022	RYAN NORWELL LAW, LLC	@FY22@ APRIL SERVICES	7,500.00	51.10.522
31966	5/16/2022	SERVICE SANITATION	@FY22@ RESTROOMS-DAM	143.23	51.50.522
31966	5/16/2022	SERVICE SANITATION	@FY22@ RESTROOMS STARLTE	167.56	51.50.522
			CHECK TOTAL	310.79	
31967	5/16/2022	SHARP CUTS LAWN CARE	@FY22@ MULCH-APRIL	3,557.00	51.20.577
31967	5/16/2022	SHARP CUTS LAWN CARE	@FY22@ MOWING APR19,25	360.00	51.20.577
31967	5/16/2022	SHARP CUTS LAWN CARE	@FY22@ MOW,RPR,FERTILIZR	1,475.50	51.20.577
			CHECK TOTAL	5,392.50	
31968	5/16/2022	SNAP ON INDUSTRIAL	@FY22@ ADAPTER SET	314.34	51.50.502
31968	5/16/2022	SNAP ON INDUSTRIAL	@FY22@ ADAPTER	68.29	51.50.502
31968	5/16/2022	SNAP ON INDUSTRIAL	@FY22@ SL HAMM KIT	267.54	51.50.502
			CHECK TOTAL	650.17	
31969	5/16/2022	STANDARD EQUIPMENT COMPANY	@FY22@ FILL HOSE	245.13	51.50.572
31970	5/16/2022	STAPLES CREDIT PLAN	@FY22@ INK, PENS	200.74	51.40.502
31971	5/16/2022	STAPLES CREDIT PLAN	@FY22@ PUSHPINX	21.99	51.20.501
31971	5/16/2022	STAPLES CREDIT PLAN	@FY22@ BULLETIN BOARD,	145.27	51.20.501
31971	5/16/2022	STAPLES CREDIT PLAN	@FY22@ DRY ERASE BOARD	221.98	51.20.501

			CHECK TOTAL	389.24	
31972	5/16/2022	STOLLER INTERNATIONAL	@FY22@ SEAT,BELTS,PULLEY	1,814.96	51.50.572
31973	5/16/2022	SUBURBAN LABORATORIES	BIMONTHLY FECAL TESTS	360.50	51.40.522
31974	5/16/2022	TRAFFIC CONTROL CORP	RACK MOUNT DETECTOR	644.00	51.33.503
31975	5/16/2022	TYSON ENTERPRISES, LLC	@FY22@ APRIL SERVICES	10,000.00	51.10.522
31976	5/16/2022	UNIVERSAL BACKGROUND SCREENING	@FY22@ NH CHECKS 4/14-4/	246.48	51.50.522
31976	5/16/2022	UNIVERSAL BACKGROUND SCREENING	@FY22@ NH CHECKS 4/25	41.08	51.33.502
			CHECK TOTAL	287.56	
31977	5/16/2022	UPS	@FY22@ SHIPPING 3/31,4/7	437.69	51.40.556
31978	5/16/2022	VANSCO SUPPLY, INC.	CUPS, LINERS, TOWELS	1,371.50	51.20.527
31979	5/16/2022	VIERS COFFEE	WATER	46.75	51.40.506
31979	5/16/2022	VIERS COFFEE	WATER, COOLER RENTAL	277.10	51.20.577
31979	5/16/2022	VIERS COFFEE	COFFEE,CREAMER	45.00	51.50.502
			CHECK TOTAL	368.85	
31980	5/16/2022	WAREHOUSE DIRECT OFFICE PRODCT	PAPER	143.19	51.50.502
31980	5/16/2022	WAREHOUSE DIRECT OFFICE PRODCT	INK	160.30	51.50.502
			CHECK TOTAL	303.49	
31981	5/16/2022	WELDSTAR COMPANY	@FY22@ CYLINDER RENTAL	96.20	51.40.503
31982	5/16/2022	WENTWORTH TIRE SERVICE	@FY22@ BOOM TRK TIRES	589.48	51.50.572
31983	5/16/2022	WESTSIDE TIRE & ALIGNMENT	@FY22@ MOUNT TIRES	50.00	51.50.572
31983	5/16/2022	WESTSIDE TIRE & ALIGNMENT	@FY22@ S36/MUFFLER	100.00	51.50.572
31983	5/16/2022	WESTSIDE TIRE & ALIGNMENT	S2/TIRE REPAIR	20.00	51.50.572
			CHECK TOTAL	170.00	
31984	5/16/2022	WILKENS-ANDERSON CO.	@FY22@ FILTERS	991.77	51.40.502
			TOTAL 5/16/22	**$ 647,434.34**	

FOR ESU COMMITTEE

TOTAL 5/2/22		192,598.15
TOTAL 5/16/22		647,434.34
TOTAL FOR MAY	$	840,032.49

ESU Street & Alley Report for May 16th, 2022

1) Alleys : There is a continuous demand for brush pick up. Addressing this requires us to delay other priorities, primarily tree work. However, this is common this time of year and we have made the necessary adjustments. 50 Code work orders (rubbish) addressed.

2) Patching : Patch crew is out daily filling pot holes. Numerous streets, including some State highways are in need of in depth repairs we are not equipped to perform. We will continue to address them as best we can.

3) Mowing : crews are out daily. 67 or so Code works orders addressed since the last meeting. Kankakee County Trustee properties number about 145 but this changes regularly. There are also 95 or so City properties (lots, parks, houses right-of-ways etc) that need to be maintained. Several tree lines have been cut back with boom mowers.

4) Tree Work : We have made significant progress over the last year. This work continues. Crews have been out over the last month, however these resources have been needed in other areas (Mowing, brush pick up).

   Grinding of woody waste continues as we are almost caught up. Significant resources have been required to keep the tub grinder operational.

5) Sweepers : Sweeper crew is out daily. This is important to maintain the effectiveness of the storm drainage system and the quality of the water that ends up in the river.

6) Equipment : Loader 2 repairs are more sever than we originally thought. Shop is concentrating on overdue maintenance.

7) Misc : Hobbie and Court project is almost complete . Most of our summer help has started.

8) Bid Results/ recommendations
   A) Fuel 2022/23
   B) Truck Bodies

ESU TECHNICAL SERVICES REPORT
April 2022

Aqua Liaison Report

1 Billing Correction
3 Calls to DPW
2 Calls to Republic
4 Services Moving
Investigated 6 customer complaints
Worked with Code Enforcement regarding 1 property
Assisted Aqua regarding 2 properties

Com Ed Liaison

Started gathering information for Com Ed Critical Facilities Report (WIP)

Administrative and Management

- Preparing Traffic/Energy/Historic Light Invoices
- Requested Police Reports for traffic accidents
- Dispatched Calls to Sewer and Tech Services
- Assist with Monthly Reports
- Monitored Technical Services Budget
- ESU Tech accts receivable and prepared payables for end of fiscal year
- Prepared ESU minutes and board packet
- Assisted walk-in customers
- Completed the Com Ed post application for the Library lighting project and received a confirmation email. Waiting to be reimbursed.
- Met with two Electrical vendors regarding parts and products
- Started the next Com Ed rebate project to upgrade 3 city parking lot lights to LED's. Information will be turned in with quotes requesting approval to proceed
- Unpacked and organized files for Tech Services
- Met with Crew daily and prioritized upcoming projects
- Processed inventory and ordered supplies for upcoming repairs and projects
- Reviewed Summer help applicant's resumes', interviewed & selected candidates and submitted recommendations to HR.Department
- Prepared duties for summer help and ordered supplies
- Technical Services employees completed the OSHA 10 training and certification

Traffic and Electrical

- Repaired a 5-section head at Court and Washington
- Adjusted the timing at Kennedy and Brookmont
- Stuck loop detector at Court and Wall
- Adjusted a 3-section head at Maple and Nelson
- Installed a gas detector on boiler no. 2 at the PSB
- Finished installing LED lights at the Library
- Replaced all the cameras and added more to the Administration building
- Started replacing cameras and pulling new camera cable at the Depot
- Installed a TV at the Library
- Prepared electrical set up for the Farmer's Market

Environmental Services Utility Sewer Services Monthly Report – April 2022

Sewer Calls: 11

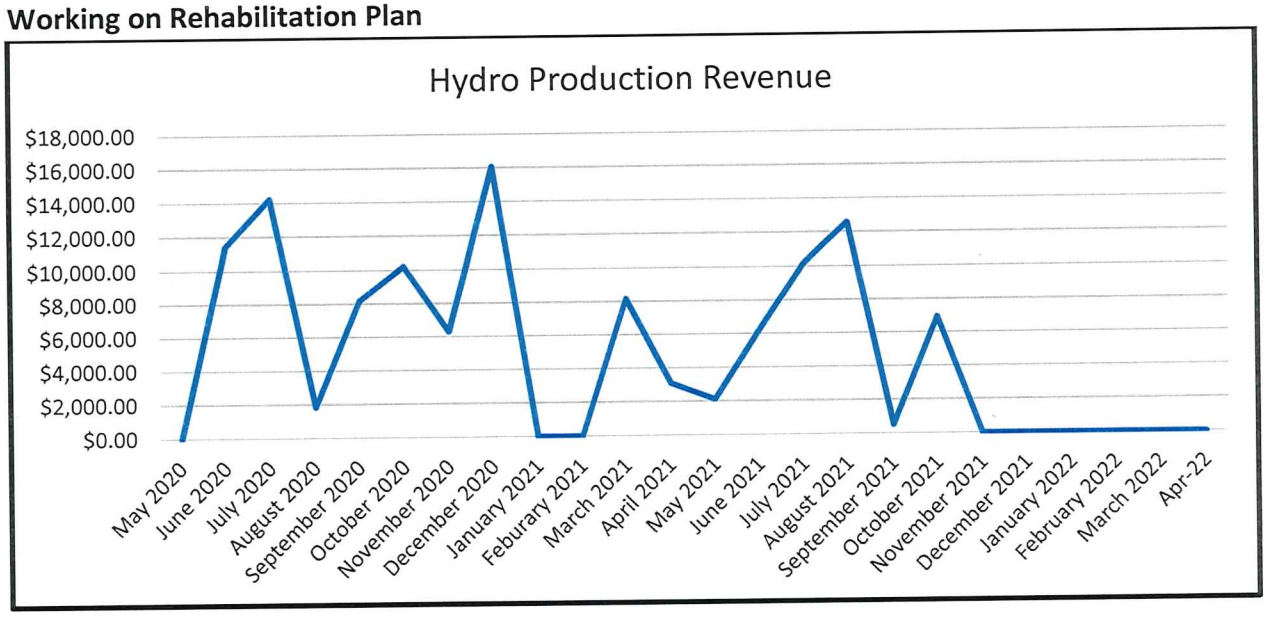
Grease Traps Inspected: 13

JULIE Locates: 321

Sanitary and Storm Lines Cleaned: 15,676 ft (2.96 miles)
Sanitary and Storm Lines Televised: 1,660 ft (0.31 miles)

Hydro Production Report

"Hydro" – 0 Production Hours – (Runs when weather and river conditions permit)
0 kWh Produced (0 Mega Watts) – NOT RUNNING
Working on Rehabilitation Plan



Lift Station Updates

Display Screen at 500 stopped working – electricians fixed

East Gracefield – Vac out wet well, back flush pumps
Gar Creek – Clean and pull pumps 1 & 3 – blocked with rags and t-shirts

Construction Updates

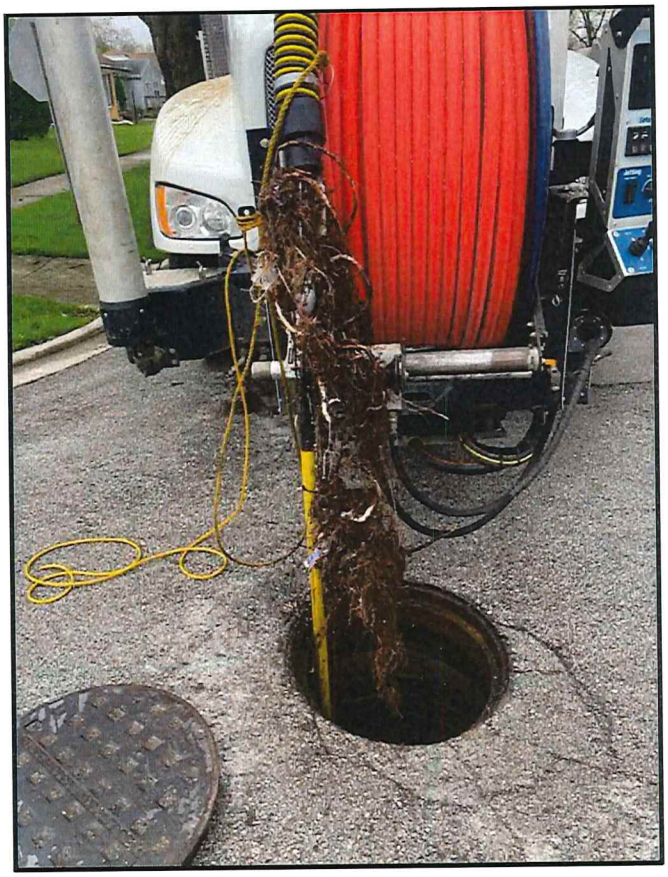
6 in house repairs

South Tec – raise lid : wall & Merchant – fix drain : 5th & Merchant – sinkhole : Merchant & Albert – inlet repair : W Hickory – sawcut sinkhole

Infrastructure Updates

I & I Project MH inspection in Lower Riverview complete
FERC dam inspection scheduled 5/16
EIA 923M for month of April submitted
NPDES/MS4 due 6/1 has been started

Sanitary Line I & I W Charles St – source identified

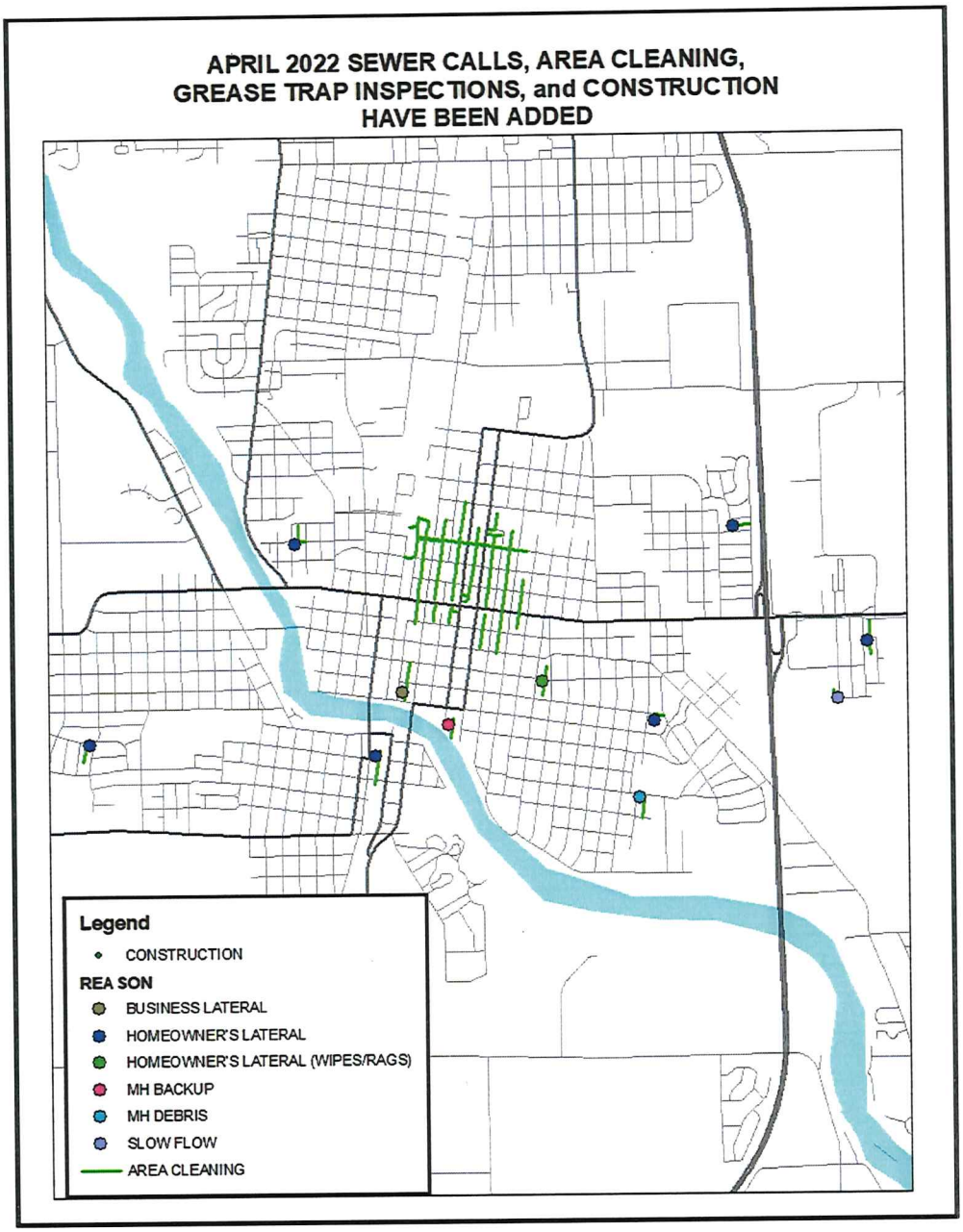


Roots in storm line Alma & Hickory

Building Maintenance Update

HVAC issues PSB
Depot fountain filled and spraying
Monthly Fire Ext Check Completed
PSB Brick Mason Exterior In Progress
Admin toilets fixed
PSB toilets and urinals fixed

Geographic Information System Updates



INDUSTRIAL--LAB SERVICES MONTHLY REPORT
April 2022

I. Industrial Services – Pretreatment Program

A. Automatic 24-Hour Composite Sampling:
1. Kensing- 3 days
2. Crown Beverage – 3 days
3. Kankakee Tank Wash – 3 days
4. CSL Behring – 3 days

B. Monthly random grab samples due to inconsistent compliance with pretreatment and/or City Ordinance limits at:
None for April 2022

C. Miscellaneous

1. Lab management prepared and forwarded the laboratory billing invoice for testing both to KRMA and to the Comptroller's Office.
2. Lab management performed random industrial spot checks throughout the month.
3. Lab management forwarded monthly wastewater reporting for Armstrong Cooling Water to the respective Armstrong personnel, Stelle wastewater reporting to the respective community of Stelle personnel, CHS (Central High School) wastewater reporting to the respective CHS operations personnel, Clifton wastewater reporting to the respective Clifton operations personnel, and Van Drunen wastewater reporting to the respective Van Drunen personnel.
4. Lab management received and reviewed the monthly continued compliance report from Special Waste Disposal for April 2022 (due by end of May). Submission of the monthly report is a permit requirement for SWD.
5. Lab personnel have continued testing on industrial and hauled-in dischargers for total phosphorus through April 2022 (began in October 2020). Per KRMA request, testing will continue and results will be forwarded until further notice.
6. Lab management has kept in regular contact with CSL Behring as they have developed a compliance plan/schedule for both pH adjustment and ammonia treatment. Phase one (permanent pH treatment) commenced on Monday, October 11, 2021. CSL Behring has achieved a more consistent pH as a result of phase one. Phase 2 is in construction.
7. The "Sanitary Extension" project at Dow Chemical (Rohm Haas) has concluded and since May 12, 2020 (the afternoon of May 11 saw the "switch-over" to the new infrastructure), Laboratory Services have used the new sampling location for wastewater collection. Reimbursement that began with the project's start in November 2019 has been added to Dow's monthly sewer invoicing. As of the end of April 2022, thirty (30) reimbursement payments have been issued with Dow's statements. An agreement was reached from meeting with Dow in March 2021 that additional payments will be extended through May 2022 to cover change costs (on Dow's portion) from the project.
8. April 2022 (and since late 2018) has continued to see Kensing sending mostly untreated wastewater to the KRMA plant as a result of their complete shutdown of their activated sludge treatment system. Dosing of an odor control agent with assistance from an environmental contractor has commenced in March 2020 and

is ongoing. Lab management continues to forward communication from Operations management on H2S concentrations within the lift station/sewer infrastructure to Kensing as part of their ongoing data collection.

9. The Dow (Rohm Haas) Remediation site (located on the south end of BASF property) continues to be shut down through April 2022 and as such there are no pretreatment requirements. In continuing their rebound study, Dow is pursuing a "No Further Action" (NFA) status with Illinois EPA. As such, no further discharge is planned under this wastewater permit which has not been renewed. Communication has been received by Dow's environmental contractor and NFA has not been granted yet. For this remediation site, Dow is still working through the reporting process and discussion with IL EPA for the NFA. The NFA staus is expected to be done no earlier than spring 2023.
10. Partnering with Operations Management, the Lab Group has successfully begun the process of sampling/testing for the City's MS4 (Municipal Separate Storm Sewer System) NPDES permit. There are eight outfalls within or just outside City borders that will be sampled quarterly for a range of parameters including solids, pH, mercury, and oil/grease (total of 11 different analyses). The March MS4 sampling was successfully completed. The next round of testing will begin in May of 2022.
11. The laboratory has begun testing four sample locations for KRMA (upstream and downstream Kankakee River along with Station Street Bridge and Warner Bridge) for total phosphorus starting August and continuing into October 2021. This testing is being performed to assist KRMA with their current NPDES permit with a special condition for a Nutrient Assessment Reduction Plan (NARP). This testing has been resumed for 2022 and will continue through October 2022 at a frequency of once a week.
12. The laboratory has successfully placed the vehicle bid order with Court Street Ford for the Ford F-250 Super Duty 4x4. Production time has increased drastically and the Court Street Ford estimated delivery to dealership is 30 plus weeks. As of February, there is no build date on this truck. Any updates will be provided to this summary report as they are received.
13. Communication and several remote discussions have been initiated with Perkin Elmer (lab equipment manufacturer for the Utility's AA and mercury units) as through our twice-per-year maintenance agreement, the laboratory was informed that our current AA unit (purchased/installed in 2004) has reached the end of its serviceable life (needed repairs done as "best-fit" and obsolete replacement parts). The current atomic absorption unit (Perkin Elmer AA 400) is responsible for analyzing all of the permit limited metals (for KRMA parameters, hauled-in waste, and industrial) including cadmium, copper, lead, molybdenum, nickel, silver, zinc, chromium, and manganese. An average of about 20 to 25 samples are analyzed per week for a total of about 500 to 600 metals analyses per month. Getting preliminary estimates on instruments and prerequisite equipment (chiller, autosampler, line conditioner, etc.), the purchase will need to be budgeted for roughly $100,000.
14. A new employee, Seth Hall, began working on November 8 and has been successfully completing training. He is expected to be fully trained by the end of the 6 month probation period that ends in May of 2022.
15. The USEPA's Annual Pretreatment Report was prepared and submitted to the USEPA on April 25, 2022. In addition to the Annual Pretreatment Report, Ms. Jodie Opie from the USEPA reviewed and requested changes in the language of

the SUO and ERP. The requested revisions were made and returned to Ms. Opie for review on April 5, 2022.

II. Industrial Monitoring Program (User Charge)

A. For the month of April 2022, the approximate number of samples collected:

200	Scheduled user-charge grab samples
295	Industrial spot checks
7	Oil & Grease samples
0	Continued pretreatment monitoring – grab samples
502	**Total for the month (20 days)**

B. Wastewater Violation Discharge Notice issued for:

None issued for April 2022

C. User Charge Billing Reports

1. The monthly user charge/pretreatment billing reports were prepared and submitted to the Comptroller's Office for final processing.
2. Flow summaries for the **"Big Two"** Industries for 2022:

2022	Kensing Total Flow MG	CSL Behring Total Flow MG
Month		
Jan-2022	20.055	24.9534
Feb-2022	19.108	23.4542
Mar-2022	19.7457	33.0616
Apr-2022	21.38767	32.2495
May-2022		
Jun-2022		
Jul-2022		
Aug-2022		
Sep-2022		
Oct-2022		
Nov-2022		
Dec-2022		
TOTAL	80.296322	113.7186
Average	20.0741	28.4297

3. Monthly industrial flow/surcharge/pretreatment billing summaries for 2022:

INDUSTRIAL MONTHLY CHARGES			
2022			
	KENSING	**CSL/NORTH**	**ROHM HAAS/DOW**
JANUARY			
Flow Charges	$224,081	$278,812	$27,460
Surcharge/Pretreatment	$22,413	$19,729	$17,442
FEBRUARY			
Flow Charges	$213,496	$262,061	$17,844
Surcharge/Pretreatment	$18,740	$35,679	$19,737
MARCH			
Flow Charges	$219,789	$369,407	$15,657
Surcharge/Pretreatment	$16,209	$50,183	$14,319
APRIL			
Flow Charges	$238,971	$360,333	$18,500
Surcharge/Pretreatment	$27,255	$46,369	$16,642
MAY			
Flow Charges			
Surcharge/Pretreatment			
JUNE			
Flow Charges			
Surcharge/Pretreatment			
JULY			
Flow Charges			
Surcharge/Pretreatment			
AUGUST			
Flow Charges			
Surcharge/Pretreatment			
SEPTEMBER			
Flow Charges			
Surcharge/Pretreatment			
OCTOBER			
Flow Charges			
Surcharge/Pretreatment			
NOVEMBER			
Flow Charges			
Surcharge/Pretreatment			
DECEMBER			
Flow Charges			
Surcharge/Pretreatment			

III. Analytical Services

A. PDC testing – Monthly QC Round Robin was performed.
B. Lab is running normally with some training and employee absence.
C. DMRQA Began in April.

AA Section samples from April 1, 2022 to April 30, 2022.
Cyanide samples – 59 samples
Industrial samples – 26 samples / 182 metals
Hauler samples – 85 samples /595 metals
Mercury samples – 89 samples

IV. Administrative Services – Administrative Specialist

A. Covid 19 Precautions
   - Daily cleaning and disinfecting of office equipment, office area, and lab area
   - Per KRMA guidelines, no visitors are allowed in the building
B. Continued to archive 2020 - 2021 industrial files – updated files for new fiscal year
C. Prepared monthly report for Utility packet
D. Met with Industrial Services Coordinator to go over daily agenda
E. Weekly scanning and entering Laboratory Accounts Payables and forwarded to Comptroller's Office
F. Liaison between Industrial Services Coordinator, industries, and KRMA Assistant Superintendent
G. Continuation of updating the Industrial Compliance Letters with edits regarding personnel and address change
H. Provide customer service to phone customers – no walk-ins allowed at this time
I. Records daily and tallies monthly laboratory user charge data for each industrial user
J. Administers the UPS shipping process; labeling, documentation for the KESU Lab Department and Technical Services Department.
K. Prepares the monthly UPS bill for submittal to Industrial Services Coordinator and Comptroller's Office
L. Entered monthly analytical metal results for hauled-in and industries into HACH program
M. With assistance of Industrial Coordinator, continuation of archiving, organizing, and maintaining industrial pretreatment files

Submitted by:
Ryan P. McGinnis, Lab Operations Manager, Kankakee Environmental Services

KANKAKEE ENVIRONMENTAL SERVICES UTILITY
EXPENDITURE AND REVENUE REPORT
April 30, 2022

UNAUDITED

At 12 months 100%
EXPENDITURE REPORT

		BUDGET 21/22	EXPENSES/ REVENUES	YEAR-TO-DATE	YEAR-TO-DATE %
51	KESU - SEWER FUND EXPENDITURES				
10	SEWER FD - ADMINISTRATION				
401	SUPERVISORY SALARIES	332,356	30,643	294,318	88.6%
405	UTILITY BOARD	5,600	400	4,800	85.7%
451	FICA/MEDICARE	297,416	31,865	278,959	93.8%
452	IMRF EMPLOYER	437,279	35,828	357,488	81.8%
453	STATE UNEMPLOYMENT	18,000	398	12,058	67.0%
454	WORKERS COMP INSURANCE	325,000	23,500	282,000	86.8%
456	HEALTH INSURANCE	941,270	86,953	727,685	77.3%
502	SUPPLIES	2,000	316	1,902	95.1%
521	AUDIT SERVICES	40,000	5,000	15,000	37.5%
522	CONTRACTUAL SERVICES	300,000	25,371	219,299	73.1%
523	LEGAL SERVICES	100,000	100,000	100,000	100.0%
524	COLLECTION EXPENSE	615,000	61,986	759,728	123.5%
536	LIABILITY INSURANCE	100,000	7,141	72,530	72.5%
546	PUBLICATIONS/MATERIALS	6,000	0	5,769	96.2%
547	DUES/MEMBERSHIPS	2,000	60	60	3.0%
548	CONFERENCES/SEMINARS	4,500	0	0	0.0%
549	TRAVEL EXPENSES	1,000	0	40	4.0%
556	POSTAGE	250	0	0	0.0%
561	SPACE CENTER LEASE	120,000	0	69,247	57.7%
566	SAFETY PROGRAM	10,000	5,000	9,865	98.6%
601	CAPITAL REPAIR/REPLACEMENT	850,000	0	0	0.0%
	TOTAL SEWER FD - ADMINISTRATION	4,507,671	414,462	3,210,748	71.2%
20	SEWER SERVICES GROUP				
401	SUPERVISORY SALARIES	82,988	9,575	86,151	103.8%
402	CLERICAL SALARIES	0	0	0	0.0%
404	LABOR	545,240	71,933	591,243	108.4%
410	OVERTIME	20,910	1,620	21,190	101.3%
415	ON-CALL PAY	20,000	0	0	0.0%
420	CERTIFICATION/LONGEVITY	15,300	0	0	0.0%
501	OFFICE SUPPLIES	1,000	0	708	70.8%
502	MATERIALS & SUPPLIES	50,000	7,074	43,936	87.9%
503	REPLACEMENT PARTS	5,000	137	4,942	98.8%
504	CHEMICALS	15,000	0	0	0.0%
512	FUEL	25,000	2,373	24,461	97.8%
514	LUBRICANTS	12,000	90	5,928	49.4%
518	UNIFORM\RUG SERVICE	6,000	1,301	6,372	106.2%
522	CONTRACTUAL INSPECTION	10,000	0	9,901	99.0%
527	CUSTODIAL SERVICES	100,000	10,114	105,262	105.3%
551	ELECTRICITY	85,000	8,922	84,638	99.6%
552	NATURAL GAS	24,000	5,459	38,045	158.5%
554	TELEPHONE	16,000	1,674	19,758	123.5%
555	WATER	30,000	540	14,362	47.9%
572	VEHICLE MAINTENANCE & REPAIR	45,000	5,123	47,706	106.0%
577	BUILDINGS & GROUNDS MAINT & REP	200,000	16,294	207,395	103.7%
	TOTAL SEWER SERVICES GROUP	1,308,438	142,229	1,311,998	100.3%
30	WASTEWATER TREATMENT				
553	WASTEWATER TREATMENT	5,913,765	499,908	5,998,884	101.4%

KANKAKEE ENVIRONMENTAL SERVICES UTILITY
EXPENDITURE AND REVENUE REPORT
April 30, 2022

UNAUDITED

At 12 months 100%
EXPENDITURE REPORT

		BUDGET 21/22	EXPENSES/ REVENUES	YEAR-TO-DATE	YEAR-TO-DATE %
33	TECHNICAL SERVICES GROUP				
401	SUPERVISORY SALARIES	73,000	8,016	73,128	100.2%
402	CLERICAL SALARIES	0	0	0	0.0%
403	TECHNICAL SALARIES	215,926	22,905	228,543	105.8%
404	LABOR	156,754	19,063	177,243	113.1%
410	OVERTIME	4,000	0	4,009	100.2%
415	ON-CALL PAY	10,200	0	0	0.0%
420	CERTIFICATION/LONGEVITY	2,000	0	0.00	0.0%
502	SUPPLIES	90,250	22,215	67,063	74.3%
503	REPLACEMENT PARTS	36,400	1,576	24,085	66.2%
512	FUEL	2,000	190	1,958	97.9%
526	TECHNICAL SUPPORT	40,000	2,600	39,731	99.3%
554	TELEPHONE	2,000	0	0	0.0%
571	TECHNICAL MAINTENANCE	4,000	4,176	4,176	104.4%
572	VEHICLE MAINTENANCE & REPAIR	4,000	208	2,118	53.0%
581	TECHNICAL REPAIR	25,000	0	1,854	7.4%
	TOTAL TECHNICAL SERVICES GROUP	665,530	80,949	623,909	93.7%
40	LABORATORY SERVICES GROUP				
401	SUPERVISORY SALARIES	94,172	9,334	98,371	104.5%
402	CLERICAL SALARIES	59,909	6,913	60,739	101.4%
403	TECHNICAL SALARIES	269,980	31,450	280,397	103.9%
410	OVERTIME	200	0	0	0.0%
420	CERTIFICATION/LONGEVITY	4,100	0	933	22.8%
502	LAB SUPPLY	72,000	20,624	47,502	66.0%
503	AA SUPPLY	25,000	1,011	10,098	40.4%
506	CLEANING/COMMODITIES	800	0	278	34.7%
512	FUEL	3,000	272	2,806	93.5%
517	SAFETY SUPPLY	800	0	664	83.0%
522	LABORATORY/CONTRACTUAL SVCS	160,000	9,142	105,294	65.8%
526	COMPUTER SUPPORT	1,800	0	96	5.3%
529	QC/QA STANDARDS	10,000	144	4,098	41.0%
530	CHEMICAL WASTE DISPOSAL	2,000	0	1,935	96.7%
546	REFERENCE MATL/HANDBOOKS	800	83	83	10.4%
548	CONFERENCE/SEMINARS			0	0.0%
553	WATER	3,000	395	2,698	89.9%
554	TELEPHONE	0	0	0	0.0%
556	POSTAGE	1,800	68	2,673	148.5%
558	COPYING/PRINTING	1,000	0	283	28.3%
571	EQUIPMENT SERVICE	36,000	0	27,323	75.9%
572	VEHICLE MAINTENANCE & REPAIR	1,600	0	1,081	67.5%
581	EQUIPMENT REPAIR	3,400	0	0	0.0%
	TOTAL LABORATORY SERVICES GROUP	751,361	79,436	647,352	86.2%
44	SEWER FD - DEBT SERVICE				
691	BOND ISSUE COSTS	-	500	500	0.0%
691	BOND PRIN/INTR/FEES	2,250,000	187,500	2,250,000	100.0%
	TOTAL SEWER FD - DEBT SERVICE	2,250,000	188,000	2,250,500	100.0%

KANKAKEE ENVIRONMENTAL SERVICES UTILITY
EXPENDITURE AND REVENUE REPORT
April 30, 2022

UNAUDITED

At 12 months 100%

EXPENDITURE REPORT

		BUDGET 21/22	EXPENSES/ REVENUES	YEAR-TO-DATE	YEAR-TO-DATE %
50	PUBLIC WORKS GROUP				
401	SUPERVISORY SALARIES	203,669	22,981	174,026	85.4%
402	CLERICAL SALARIES	42,175	4,866	42,133	99.9%
404	LABOR	2,205,741	185,657	1,942,872	88.1%
410	OVERTIME	90,000	2,221	77,856	86.5%
420	LONGEVITY	37,378	0	0	0.0%
502	MATERIALS & SUPPLIES	295,000	6,955	129,419	43.9%
512	FUEL	145,000	10,661	128,047	88.3%
522	COMTRACTUAL SERVICES	95,000	4,634	41,254	43.4%
530	WASTE HAULER	1,824,723	156,051	1,824,723	100.0%
531	ESU COLLECTION & DISPOSAL	100,000	1,238	83,480	83.5%
548	CONFERENCES/SEMINARS	5,000	495	1,320	26.4%
572	VEHICLE MAINTENANCE & REPAIR	262,500	46,656	286,136	109.0%
588	STREET & ALLEY REPAIR	75,000	1,375	40,013	53.4%
TOTAL PUBLIC WORKS GROUP		5,381,186	443,790	4,771,280	88.7%
TOTAL UTILITY EXPENSE		20,777,951	1,848,273.29	18,814,171	90.5%

REVENUE REPORT

361	RESIDENTIAL/COMMERCIAL SEWER	6,130,385	534,578	6,441,469	105.1%
363	INDUSTRIAL SEWER	9,900,000	954,992	8,992,678	90.8%
364	SOLID WASTE FEES	3,160,407	316,962	3,277,954	103.7%
366	MANTENO CONTRACT REC'D FEB 28, 2022	150,000	0	150,000	100.0%
367	CHEBANSE CONTRACT	170,000	16,106	183,237	107.8%
369	KRMA CONTRACT	400,000	39,509	418,403	104.6%
373	HYDRO	55,000	0	63,552	115.5%
375	IDOT	70,000	0	38,467	55.0%
397	FEDERAL BOND INT	72,688	0	0	0.0%
398	APEA REVENUE UTILITY SEWER	650,000	0	0	0.0%
399	MISC REVENUE	40,000	1,124	65,815	164.5%
TOTAL REVENUE		20,798,480	1,863,271	19,631,576	94.4%

as of 4/30/22

CAPITAL ACCOUNT	*$*	*0*	BOND & INTEREST
GENERAL ACCOUNT	*$*	*390,229*	RESERVE & REPLACEMENT
			SURPLUS
			BOND RESERVE

$2,129,398
$554,460
$50,000
$1,900,000

CITY OF KANKAKEE

SANITARY SEWER CLEANING AND TELEVISING
LOWER RIVERVIEW

REL Project 22-R0357.01

22-R0357.01

CITY OF KANKAKEE
KANKAKEE COUNTY, ILLINOIS
NOTICE TO CONTRACTORS

The Mayor and City Council will receive sealed proposals for the following improvements at the Kankakee City Clerk's office, 304 S. Indiana Avenue, Kankakee, IL 60901, until 1:00 P.M. on May 6, 2022.

SANITARY SEWER CLEANING AND TELEVISING – LOWER RIVERVIEW

Proposals will be publicly read aloud after 1:00 P.M. on May 6, 2022. No bid shall be withdrawn after the opening of the proposals without the consent of the Mayor and City Council for a period of ninety days after the scheduled time of closing bids.

All proposals shall be sealed in an envelope, addressed to the City of Kankakee, attention Clerk's office. The name and address of the bidder and the name of the project shall also appear on the outside of the envelope. Proposals must be submitted on the forms provided by the Engineer.

The Bid Documents, including specifications, are on file at the office of the Engineer, Robinson Engineering, Ltd., phone: (815) 932-7406, email: reladministrative@reltd.com, and may be obtained electronically via email upon review of prequalification information. The bid documents will be issued until 4:00 PM on May 5, 2022.

A certified check/bank draft drawn on a solvent bank**,** cashier's check or bid bond, payable without condition to the City of Kankakee in an amount not less than ten percent (10%) of the bid shall be submitted with each proposal, as a guarantee that, if the proposal is accepted, a contract will be entered into and the performance of the contract is properly secured.

A performance bond in a sum equal to one hundred percent (100%) of the amount of the bid, with sureties to be approved by the Mayor and City Council for the faithful performance of the contract must be furnished by the successful bidder. All bids or proposals shall contain an offer to furnish bond upon acceptance of such bid or proposal.

The right is reserved to reject any or all proposals, to waive technicalities, to postpone the bid opening, or to advertise for new proposals, if in the judgment of the Mayor and City Council their best interests will be promoted thereby.

The Contractor will be required to pay not less than the prevailing wage rates on this project as established by the Illinois Department of Labor. The Contractor shall also comply with all applicable Federal, State, and local regulations.

Bidder qualifications and experience will also be included in the basis for determining the lowest responsible bidder.

Prequalification will be required to be submitted to the Engineer by all potential bidders prior to receiving a bid package. If in the opinion of the Engineer and the Mayor and City Council, an applicant would not be able to serve the best interest of the City of Kankakee, a proposal will not be issued to the applicant.

Mayor and City Council
City of Kankakee
Kankakee County, Illinois

PROPOSAL and CONTRACT

PROPOSAL

TO THE OWNER, _____

1. Proposal of _____
(name and address of bidder)

_____

_____
(email address of bidder)

for the improvement described in the NOTICE TO CONTRACTORS.

2. In submitting this proposal, the undersigned declares that the only persons or parties interested in the proposal as principals are those named herein; and that proposal is made without collusion with any other person, firm or corporation.

3. The undersigned further declares that he has carefully examined the proposal, plans, specifications, form of contract and contract bond, and special provisions (if any), and that he has inspected in detail the site of the proposed work, and that he has familiarized himself with all of the local conditions affecting the contract and the detailed requirements of construction, and understands that in making this proposal he waives all right to plead any misunderstanding regarding the same.

4. The undersigned further understands and agrees that if this proposal is accepted, he is to furnish and provide all necessary machinery, tools, apparatus and other means of construction, and to do all of the work, and to furnish all of the materials specified in the contract, except such materials as are to be furnished by the Owner, in the manner and at the time therein prescribed, and in accordance with the requirements therein set forth, and is fully responsible for the construction means, methods, techniques, sequences and safety procedures and programs incident thereto.

5. The undersigned declares that he understands that the quantities mentioned are approximate only and that they are subject to increase or decrease; that he will take in full payment therefore the amount and the summation of the actual quantities, as finally determined, multiplied by the unit prices shown in the schedule of prices contained herein.

6. The undersigned further agrees that the unit prices submitted herewith are for the purpose of obtaining a gross sum, and for use in computing the value of extras and deductions; if there is a discrepancy between the gross sum bid and that resulting from the summation of the quantities multiplied by their respective unit prices, the latter shall apply.

7. The undersigned further agrees that if the Owner decides to extend or shorten the improvement, or otherwise alter it by extras or deductions, including the elimination of any one or more of the items, as provided in the specifications, he will perform the work as altered, increased or decreased at the contract unit prices.

8. The undersigned further agrees that the Owner may at any time during the progress of work covered by this contract order other work or materials incidental thereto and that all such work and materials as do not appear in the proposal or contract as a specific item accompanied by a unit price, and which are not included under the bid price for other items in this contract, shall be performed as extra work, and that he will accept as full compensation therefore the actual cost plus fifteen per cent (15%), the actual cost to be determined as provided in the specifications.

9. The undersigned further agrees to execute a contract for this work and present the same to the Owner within fifteen (15) days after the date of notice of the award of the contract to him.

10. The undersigned further agrees that he and his surety will execute and present within fifteen (15) days after the date of notice of the award of contract, a contract bond satisfactory to and in the form prescribed by the Owner, in the penal sum of the full amount of the contract, guaranteeing the faithful performance of the work in accordance with the terms of the contract.

11. The undersigned further agrees to begin work not later than ten (10) days after the execution and approval of the contract and contract bond, unless otherwise provided, and to prosecute the work in such manner and with sufficient materials, equipment, labor and safety precautions as will insure its completion within the time limit specified herein, it being understood and agreed that the completion within the time limit is an essential part of the contract. The undersigned agrees to complete the work within _____ calendar days after the date of the execution of the contract by both parties, or by **July 30, 2022** if this is a completion day contract, unless additional time shall be granted by the Engineer in accordance with the provisions of the specifications. In case of failure to complete the work within the time names herein or within such extra time as may have been allowed by extensions, the undersigned agrees that the Owner shall withhold from such sums as may be due him under the terms of this contract, the costs set forth in the specifications, which cost shall be considered and treated not as a penalty, but as damages due the Owner form the undersigned by reason of inconvenience to the public, added cost of engineering and construction observation, maintenance of detours, and other items which have caused an expenditure of public funds resulting from the failure of the undersigned to complete the work within the time specified in the contract.

12. Accompanying this proposal is a bank draft, bank cashier's check, certified check or bid bond, complying with the requirements of the specifications, made payable to:_____

_____

The amount of the bond, check or draft is_____

_____($_____).

If the proposal and the undersigned shall fail to execute a contract and contract bond as required herein, it is hereby agreed that the amount of the check or draft substituted in lieu thereof, shall become the property of the Owner, and shall be considered as payment of damages due to delay and other causes suffered by the Owner because of the failure to execute said contract and contract bond; otherwise said check or draft substituted in lieu thereof shall be returned to the undersigned.

ATTACH BANK DRAFT, BID BOND, BANK CASHIER'S
CHECK OR CERTIFIED CHECK HERE

In the event that one check, bond, or draft is intended to cover two or more proposals, the amount must be equal to the sum of the proposal guarantees of the individual sections covered.

13. The undersigned submits herewith his schedule of prices covering the work to be performed under this contract; he understands that he must show in the schedule the unit prices for which he proposes to perform each item of work; that the extensions must be made by him; and that if not so done, his proposal may be rejected as irregular.

14. The undersigned firm certifies that it is not barred from bidding on this contract as a result of a conviction for the violation of State laws prohibiting bid-rigging or bid-rotating.

CONTRACTOR'S STATEMENT

1. Do you have sufficient knowledge of Drawings and Specifications of the work covered by this Contract to warrant submitting a Proposal for this work? _____

2. (a) Have you done work of this nature? _____

   (b) To what extent? (Dollar value) _____

   (c)For whom? _____

   _____

3. Do you have sufficient equipment to perform this work?_____

   If so, list major items: _____

   _____

4. Give Bank reference: _____

   Address:

   _____

5. List names and addresses of major suppliers:

   _____

   _____

   _____

6. Have you ever had, or do you now have, funds withheld for non-completion of work to the satisfaction of any municipality?_____

   (a) If so where?_____

   (b) For what reason?_____

7. Have you ever been disqualified by a Governmental Agency for failure to satisfactorily complete a public improvement?_____

CONTRACTOR'S STATEMENT (cont.)

8. Have you ever been cited for failing to withhold or report payroll deductions for Federal Income Tax? _____

9. Have you ever been cited by the Federal Government for any violation of the Copeland Act (Anti-kick-back Law)? _____

10. If awarded contract, work will begin in _____ calendar days.

CERTIFICATE OF ELIGIBILITY TO BID

I, _____ (contractor), pursuant to section 33E-11 of the Illinois Criminal Code of 1961 as amended, hereby certifies that neither (he, she, it) nor any of (his, her, its) partners, officers, or owners of (his, her, its) business has been convicted in the past five (5) years of the offense of bid-rigging under section 33E-3 of the Illinois Criminal Code of 1961 as amended and that neither (he , she, it) nor any of (his, her, its) business has ever been convicted of the offense of bid-rotating under section 33E-4 of the Illinois Criminal Code of 1961 as amended.

Date: _____ By: _____
(Name of Contractor)

_____
(Title)

Robinson ENGINEERING
Municipal Expertise. Community Commitment.

REL # 22-R0357.01

SCHEDULE OF PRICES

Local Agency City of Kankakee

Location Lower Riverview

Description Sanitary Sewer Cleaning and Televising

The undersigned submits herewith his schedule of prices covering the work to be performed under this contract; he understands that he must show in the schedule the unit prices for which he proposes to perform each item of work; that the extensions must be made by him, and if not so done, his proposal may be rejected as irregular.

Schedule for Single Bid

(For complete information covering these items, see plans and specifications.)

Bidder's Proposal for making Entire Improvements	

Item No.	Items	Unit	Quantity	Unit Price	Total
1	SANITARY SEWER TO BE CLEANED, 6"	FOOT	470		
2	SANITARY SEWER TO BE CLEANED, 8"	FOOT	40,000		
3	SANITARY SEWER TO BE CLEANED, 10"	FOOT	16,500		
4	SANITARY SEWER TO BE CLEANED, 12"	FOOT	13,450		
5	SANITARY SEWER TO BE CLEANED, 15"	FOOT	820		
6	SANITARY SEWER TO BE CLEANED, 18"	FOOT	3,240		
7	SANITARY SEWER TO BE CLEANED, 21"	FOOT	3,070		
8	SANITARY SEWER TO BE CLEANED, 24"	FOOT	1,300		
9	INTERNAL TELEVISION INSPECTION OF SEWER	FOOT	78,850		

SIGNATURES

(If an individual)

Signature of Bidder .....

Business Address .....

(If a co-partnership)

Firm Name ..... (SEAL)

Signed by ..... (SEAL)

Business Address .....

Insert Names and Addresses of All Members of the Firm .....

.....

.....

(If a corporation)

Corporate Name .....

Signed By .....
President

Business Address .....

(Corporate Seal)

Insert Names of Officers

President .....

Secretary .....

Treasurer .....

Attest: .....

Attestor's Title: _____

Phone Number _____

BIDDER'S CERTIFICATE

The undersigned, having executed the attached bid for the construction of:

_____

Name of Project

for the Village/City/Town of _____, County of _____, State of _____ hereby certifies that he has read all of the Contract Documents, including the Notice to Bidders, Instructions to Bidders, Proposal Forms, General conditions of the contract, Detail Specifications, Forms of contract, Form of Performance Bond and Form of Maintenance Bond, and that he has examined the plans and that his proposal for the work is based on the conditions and requirements therein; and should the contract be awarded to him, he agrees to execute the work in strict accordance therewith, including compliance with the Insurance Requirements of the General Conditions.

Name of Bidder

By: _____
Company Name

Date: _____

DIVISION I

GENERAL REQUIREMENTS AND COVENANTS

SECTION 1. DEFINITION OF TERMS

1-1 DESCRIPTION

When a standard specification number is used in the Specifications it shall be taken to mean the latest revision of that Standard Specification at the time of the Bid.

Whenever in the specifications and Contract the following terms, or pronouns in place of them, are used, the intent and meaning shall be interpreted as follows:

1-2 ABBREVIATIONS

The following organizations are referred to in this specification by abbreviations of the titles. Additional information noted but not detailed can be obtained from these organizations by writing to them.

ASTM	American Society for Testing and Materials 1916 Race Street Philadelphia, Pennsylvania 19103
ASSHTO	The American Association of State Highway and Transportation Officials 917 National Press Building Washington, D.C. 20004
AWWA	American Water Works Association 6666 West Quincy Avenue Denver, Colorado 80235
NSF	National Sanitation Test Laboratory Foundation Box 1478 Ann Arbor, Michigan
ANSI	American National Standards Institute 1430 Broadway New York, New York 10018
IDOT	Illinois Department of Transportation 2300 South Dirksen Parkway Springfield, Illinois 62764
FHWA	Federal Highway Administration DOT Building, 400 Seventh St., S.W. Washington, D.C. 20590
OSHA	Occupational Safety and Health Act
MWRDGC	The Metropolitan Water Reclamation District of Greater Chicago 100 East Erie Street Chicago, Illinois 60611

REL	Robinson Engineering, Ltd
ISO	Insurance Services Office

1-3 ADDENDA

Written or graphic instruments issued prior to the execution of the Agreement, which modify or interpret the Contract Documents, Drawings, and Specifications by additions, deletions, clarifications or corrections.

1-4 AWARD

The decision of the Owner to accept the proposal of the lowest responsive, responsible bidder for the work, subject to the execution of and approval of a satisfactory Contract therefore, and bond to secure the performance thereof, and to such other conditions as may be specified or otherwise required by law.

1-5 BASE COURSE

The layer or layers of specified or selected material of designed thickness placed on a sub-base or a subgrade to support the surface course.

1-6 BITUMINOUS PAVEMENT

A pavement structure which maintains intimate contact and distributes loads to the subgrade and depends upon aggregate interlock particle friction and cohesion for stability, and a pavement structure which includes a bituminous concrete surface course over a bituminous concrete base course or a portland cement concrete base course.

1-7 BIDDER

Any individual, firm, partnership or corporation submitting a proposal for the Work contemplated, acting directly or through a duly authorized representative.

1-8 CONTRACT

The written agreement between the Owner and the Contractor setting forth the obligations of the parties thereunder, including, but not limited to, the performance of the Work (the furnishing of labor and materials, and the basis of payment).

The Contract includes such of the following document parts as may be utilized. These document parts so utilized will be as fully part of the Contract as if therein set out verbatim, or, if not attached, as if attached thereto. The controlling order of priority for these documents on the project is as follows (e.g., A is controlling over B-N, etc.):

A. Supplemental Agreements (Change Order)
B. Addenda
C. Special Conditions of Contract
D. General Conditions of Contract
E. Special Provisions to the Specifications
F. Detailed Specifications
G. Complete Project Plans or Drawings
H. General Specifications
I. Contract
J. Contractor's Contract Bond
K. Contractor's Proposal
L. Notice to Proceed
M. Notice of Award
N. Notice to Bidders

1-9 CONTRACTOR

The Bidder awarded the Contract for the Work.

1-10 CONTRACT BOND

The approved form of security furnished by the Contractor and his surety as a guaranty that he will execute the Work in accordance with the terms of the Contract.

1-11 CORPORATION

With respect to the execution and performance of the Contract, a corporate body authorized or licensed to do business in the State of Illinois for projects in Illinois and in the State of Indiana for projects in Indiana.

1-12 CULVERT

A drainage structure extending across and beneath a traveled way and having a tubular or box-type cross-section open on both ends.

1-13 ENGINEER

ROBINSON ENGINEERING, LTD. or an engineer of a municipality, including such assistants as are authorized to represent them, who represents the Owner during the construction phase activities of the Work.

1-14 FORCE MAIN

A pipe constructed or used to carry sewage under pressure.

1-15 ENGINEERING OBSERVER

The authorized representative of the Owner or of the Engineer assigned to observe the progress of the Work to determine only if the Work is proceeding in accordance with the technical plans and specifications.

1-16 LABORATORY

An established testing laboratory approved by the Engineer.

1-17 MANHOLE

A vertical enclosed structure providing access to a pipe line or other structure.

1-18 NOTICE TO BIDDERS

The official notice, included in the proposal form, inviting bids for the proposed improvement, including a brief description of the Work.

1-19 OWNER

The Village, City, Town, Sanitary District, or other governmental body, corporation, partnership or individual initiating the project, acting through its legally constituted officials, officers or employees. The Department as referenced in the State Specifications.

1-20 PAVEMENT STRUCTURE

The combination of sub-base, base course and surface course placed on a sub-grade to support the traffic load and distribute it to the roadbed.

1-21 PLANS

All official drawings or reproductions of drawings pertaining to the Work provided for in the contract.

1-22 PLUMBING

Plumbing shall be as defined in the latest adopted Illinois State Plumbing Code, copies of which are available from the Illinois Department of Public Health, Division of Engineering and Sanitation, 535 West Jefferson Street, Springfield, Illinois 62706.

1-23 PROPOSAL (BID)

The written offer of the Bidder to perform the proposed Work.

1-24 PROPOSAL GUARANTY

The security designated in the proposal to be furnished by the Bidder as a guaranty that said Bidder will enter into a Contract with the Owner for the acceptable performance of the Work and will furnish the required Contract Bond, if the Work is awarded to him.

1-25 RAILROAD

The Railroad or Railway Company whose property is involved in the Work.

1-26 RIGHT-OF-WAY AND EASEMENTS

The areas owned, or acquired by permanent easement; also, the areas acquired by temporary easement during the time the easement is in effect.

1-27 SEWER, COMBINED

Any sewer constructed or used for the purpose of carrying both storm water and waterborne wastes to a treatment facility.

1-28 SEWER, SANITARY

Any sewer constructed or used for the purpose of carrying waterborne wastes to a treatment facility.

1-29 SEWER, SERVICE

A branch sanitary sewer line constructed from the main sanitary sewer line to a point described in the Special Provisions or Plans or to a point established by the Engineer.

1-30 SEWER, STORM

A sewer constructed or used for carrying storm water or sub-surface water to a storm water outlet.

1-31 SPECIAL PROVISIONS

Specific directions, provisions, requirements and revisions of the Specifications peculiar to the Work under consideration which are not satisfactorily provided for in the Specifications. The Special Provisions set forth the final contractual intent as to the matter involved. The Special Provisions included in the Contract shall not operate to annul those portions of the Specifications with which they are not in conflict.

1-32 SPECIFICATIONS

The body of directions, provisions and requirements contained herein, or in any supplement to this document referred to in the Special Provisions, together with written agreements and all documents of any description made or to be made pertaining to the method or manner of performing the Work, the quantities or the quality of materials to be furnished under the contract.

1-33 STATE SPECIFICATIONS

IDOT, Standard Specifications for Road and Bridge Construction, latest edition at the time of Bid. This book outlines the general requirements and covenants to all improvements, as well as provisions relating to materials, equipment and construction requirements for individual items of work.

1-34 SUBCONTRACTOR

The individual, firm, partnership or corporation to whom the Contractor, with the written consent of the Engineer, sublets, assigns, or otherwise disposes of any part of the Work covered by the contract.

1-35 SUB-BASE

The layer or layers of specified or selected material of designed thickness placed on a sub-grade to support a base course.

1-36 SUB-GRADE

The top of surface of a roadbed upon which the pavement structure and shoulders are constructed.

1-37 SUPPLEMENTAL AGREEMENT

The written agreement executed by the Owner and the Contractor, with the assent of the Contractor's surety, covering modifications or alterations of the terms of the original Contract.

1-38 SUPPLIER

Any person or organization who supplies materials or equipment for the Work including that fabricated to a special design.

1-39 SURETY

The corporate body, individual or individuals which engage to be responsible for the Bidder's acts in the execution of the Contract in the event of its being awarded to him; or, which are bound with and for the Contractor to insure his acceptable performance of the Contract, his payment of all obligations pertaining to the Work, and his fulfillment of such other conditions as may be specified or otherwise required by law.

1-40 SURFACE COURSE

One or more layers of a pavement structure designed to accommodate the traffic load, the top layer of which resists skidding, traffic abrasion, and the disintegrating effects of climate. The top layer is sometimes called "wearing course".

1-41 WATER MAIN

A pipe constructed or used to carry potable water under pressure.

1-42 WATER SERVICE LINE

That line connected to the water main, which delivers potable water to the user's facilities.

1-43 THE WORK

The improvement advertised for bids, described in the Proposal form, indicated on the Plans and covered in the Specifications, Special Provisions, Contract, authorized alterations, extensions and deductions, and supplementary agreements, or any part or parts thereof.

SECTION 2. PROPOSAL REQUIREMENTS AND CONDITIONS

2-1 CONTENTS OF THE PROPOSAL FORM

Bidders will be furnished with forms stating the location and description of the Work contemplated, the approximate quantities of Work to be performed, the amount of the Proposal Guarantee, requirements pertaining to labor, and the date, time and place of filing and opening Proposals. All documents bound with or attached to the proposal shall be considered a part thereof, and shall not be detached or altered.

2-2 INTERPRETATION OF ESTIMATE OF QUANTITIES

An estimate of quantities of Work to be done and materials to be furnished under the Specifications is given in the Proposal. It is given as a basis for comparison of Proposals and the award of the Contract. The Owner and Engineer do not expressly or by implication agree that the actual quantities involved will correspond therewith; nor shall the Bidder plead misunderstanding or deception because of such estimate of quantities pertaining to the Work.

Payment will be based on the actual quantities of Work performed in accordance with Contract, at the Contract unit prices specified. No allowance will be made for any change in anticipated profits due to an increase or decrease in the original estimate of quantities. The Owner reserves the right to omit any item entirely, or to increase or decrease any or all items as provided in Section 4-3.

2-3 EXAMINATION OF PLANS, SPECIFICATIONS, SPECIAL PROVISIONS, AND SITE OF WORK

The bidder shall, before submitting his bid, carefully examine the Proposal, Plans, Specifications, Special Provisions, and form of Contract and bond. He shall inspect in detail the site of the proposed Work and familiarize himself with all the local conditions affecting the Contract and the detailed requirements of construction. If his Bid is accepted, he will be responsible for all errors in his Proposal resulting from his failure or neglect to comply with these instructions. The Owner or Engineer will, in no case, be responsible for any change in anticipated profits resulting from such failure or neglect.

When the Plans or Special Provisions include information pertaining to sub-surface exploration, borings, test pits, and other preliminary investigations, such information is included only for the convenience of the Bidder. The Owner or Engineer assumes no responsibility whatever in respect to the sufficiency of the information, and there is no guaranty, either expressed or implied, that the conditions indicated are representative of those existing throughout the Work, or that unanticipated developments may not occur.

When the Plans or Special Provisions include information pertaining to the location of underground utility facilities, such information is only included for the convenience of the Bidder. The Owner or Engineer assumes no responsibility whatever in respect to the sufficiency or accuracy of the information, or lack of information, shown on the Plans relative to the location of underground utility

facilities. It shall be the Contractor's responsibility to obtain from the respective utility companies detailed information relative to the location of their facilities and the work schedules of the utility companies for removing or adjusting them.

2-4 ENGINEER'S ESTIMATE

The Engineer's "Estimate of Cost" as prepared for the Owner for the work to be completed under this contract may or may not be available to the Bidders at the discretion of the Owner or the Engineer. If the "Estimate of Cost" is available, it shall be given to all prospective bidders upon request.

2-5 PREPARATION OF THE PROPOSAL

The Bidder shall submit his Proposal on the form furnished by the Owner. The Proposal shall be executed properly, and Bids shall be made for all items indicated in the proposal form, except that when alternate bids are asked, a Bid on more than one alternate for each item is not required, unless the Special Provisions provide otherwise. The Bidder shall indicate, in figures, a unit price or lump sum for each of the separate items called for in the Proposal; he shall show the products of respective quantities and unit prices in the column provided for that purpose, and the gross sum shown in the place indicated in the Proposal shall be the summation of said products. All writing shall be with ink or typewriter, except the signature of the bidder, which shall be written with ink.

If the Proposal is made by an individual, his name and post office address shall be shown. If made by a firm, joint venture, or partnership, the name and post office address of each member of the firm, joint venture, or partnership shall be shown. If made by a corporation, the Proposal shall show the names, titles, and business addresses of the president, secretary, and treasurer, certified to by the secretary.

2-6 MULTIPLE BIDS

If multiple Bids are to be received, bidding shall be in accordance with the instructions in the Special Provisions.

2-7 REJECTION OF PROPOSALS

Proposals that contain omissions, erasures, alterations, additions not called for, conditional or alternate bids unless called for, irregularities of any kind, or proposals otherwise regular which are not accompanied by the proper proposal guaranty shall be rejected as informal or insufficient. However, the Owners reserve the right to reject any or all Proposals and to waive such technical error as may be deemed best for the interest of the Owner.

2-8 PROPOSAL GUARANTY

Each proposal shall be accompanied by a bid bond, bank draft, bank cashier's check, or properly certified check for not less than ten per cent (10%) of the amount Bid unless otherwise specified in the Special Provisions.

If a multiple Bid is submitted, the bid bond, bank draft, bank cashier's check, or certified checks, which accompany the individual Proposals making up the combination, will be considered as also covering the multiple Bid.

See Paragraph 3-3 regarding return of Proposal Guaranty.

The bid bond, bank draft, cashier's checks, or certified checks accompanying Proposals shall be made payable to the Owner.

2-9 DELIVERY OF PROPOSALS

Proposals shall be delivered prior to the time and at the place indicated in the notice to bidders. Each Proposal shall be placed in an envelope sealed and plainly marked to indicate its contents. Only sealed Proposals will be accepted.

Proposals will not be opened unless received at the place of letting and prior to the time stated in the Notice to Bidders.

2-10 WITHDRAWAL OF PROPOSALS

Permission will be given a Bidder to withdraw a Proposal if he makes his request in writing before the time for opening Proposals. If a Proposal is withdrawn, the Bidder will not be permitted to submit another Proposal for the same Work at the same letting.

2-11 WITHDRAWAL OF PROPOSAL GUARANTY

See Paragraphs 3-2 and 3-3 on award of Contract and return of Proposal Guaranty.

2-12 PUBLIC OPENING OF PROPOSALS

Unless otherwise specified, Proposals will be opened and read publicly at the time and placed specified in the Notice to Bidders. Bidders, their authorized agents, and other interested parties are invited to be present.

2-13 DISQUALIFICATION OF BIDDERS

Any one or more of the following causes may be considered as sufficient for the disqualification of a Bidder and rejection of his Proposal.

A. More than one Proposal for the same Work from an individual, firm, partnership, or corporation under the same or different names.

B. Evidence of collusion among bidders.

C. Unbalanced Proposals in which the prices for some items are substantially out of proportion to the prices for other items.

D. Failure to submit a unit price for each item of Work listed in the Proposal.

E. If the Proposal form is other than that furnished by the Engineer or if the form is altered or any part thereof is detached.

F. If there are omissions, erasures, alterations, unauthorized additions, conditional or alternate bids, or irregularities of any kind which may tend to make the Proposal incomplete, indefinite or ambiguous as to its meaning.

G. If the bidder adds any provisions reserving the right to accept or reject an award, or to enter into a contract pursuant to an award.

H. If the Proposal is not accompanied by the proper proposal guaranty.

I. If the Proposal is prepared with other than ink or typewriter.

J. Lack of competency as revealed by financial statement or experience questionnaire.

K. Unsatisfactory performance record as shown by past work judged from the standpoint of workmanship and progress.

L. Uncompleted work, which, in the judgment of the Owner, might hinder or prevent the prompt completion of additional work.

M. False information provided on a Bidder's "Contractor's Statement."

N. Failure to comply with any prequalification regulations of the Owner.

O. Default under previous contracts.

2-14 COMPETENCY OF BIDDERS

The Bidder, if a corporation, shall show the name of the State in which the corporation is chartered. Each Bidder shall furnish the Owner within two (2) weeks after request, with satisfactory evidence of his competency to perform the Work contemplated. When requested, he shall submit to the Owner a

financial statement prepared by a Certified Public Accountant showing his financial condition at the end of his past fiscal year. The accountant who prepares the statement shall certify that he holds a valid and unrevoked certificate as a Certified Public Accountant, issued in accordance with the laws of the State in which he is licensed. The Bidder, if requested, shall also answer and submit questionnaires relating to his experience and available equipment for performing construction work similar to that for which he is offering a proposal, and shall do so within the same two weeks from the time of request.

Before an award is made, the Bidder may, at the option of the Owner be required to furnish a statement showing the value of all uncompleted work for which he has entered into contracts.

2-15 MATERIAL SUBSTITUTIONS

If restrictions of any governmental authority prohibit the use of certain items that are required by the Plans and Specifications, substitution for such items will be determined by the Owner.

Each Bidder shall base his bid on the furnishing of all items exactly as shown on the Plans and as described in the Specifications. The successful Bidder will not be authorized to make any substitutions on his own volition, but in each and every case must obtain a properly authorized change order from the Owner on his Contract before installing any work in variance with the Contract requirements.

2-16 CONTRACTOR'S UNDERSTANDING

It is understood and agreed that the Contractor has, by careful examination, satisfied himself as to the nature and location of the work, the conformation of the ground, the character, quality and quantity of the materials to be encountered, the character of equipment and facilities needed preliminary to and during the prosecution of the Work, the general and local conditions, and all other matters which can in any way affect the Work under this Contract. No verbal agreement or conversation with any officer, agent, or employee of the Owner and Engineer, either before or after the execution of this Contract, shall affect or modify any of the terms or obligations herein contained.

2-17 STATUS OF RIGHT-OF-WAY, EASEMENT AND CONSTRUCTION EASEMENT ACQUISITION

Each bidder is instructed to fully acquaint himself with the status of the right-of-way, easement and construction easement acquisition at the time of submission of his proposal and the possibility of the acquisition of the parcels remaining to be acquired, if any, in time so as not to interfere with the progress of his work under this contract, and the owner shall not be liable to any damage that may occur to him for any and all delay through delay of the owner in securing the necessary right-of-way, easement and construction easement.

The owner agrees that it will make every effort to acquire any right-of-way, easement and construction easement with all speed and diligence possible.

SECTION 3. AWARD AND EXECUTION OF CONTRACT

3-1 CONSIDERATION OF PROPOSALS

The proposals received will be compared on the basis of the summation of the products of the items of Work listed and the unit prices offered. In case of discrepancy between the gross sum shown in the Proposal prices, the unit prices shall govern, and any errors found in said products shall be corrected. In awarding Contracts, the Owner will, in addition to considering the amounts stated in the Proposals, take into consideration the responsibility of the various Bidders as determined from a study of the data required under the previous article and from other investigations, which the Owner may elect to make.

3-2 AWARD OF CONTRACT

Except in cases where the Owner exercises the right reserved to reject any or all Proposals, the Contract will be awarded by the Owner, as soon as practicable after the opening of Proposals.

Unless otherwise specified, if a Contract is not awarded within forty- five (45) days after the opening of Proposals, a Bidder may file a written request with the Owner for the withdrawal of his bid or award date may be extended by mutual consent of the Owner and Bidder. The Owner will have a maximum of ten (10) days after the receipt of such request to award the Contract or release the Bidder from further obligation by return of the Bidder's Proposal Guaranty.

3-3 RETURN OF PROPOSAL GUARANTY

The Proposal Guaranties of all except the two lowest Bidders will be returned promptly after the Proposals have been checked. Proposal Guaranties of the two lowest Bidders will be returned as soon as the Contract and Bond of the successful bidder have been properly executed and approved.

If Contracts cannot be awarded promptly, the Owner shall permit the two (2) lowest Bidders to substitute for the bank cashier's checks, or certified checks which they may have submitted with their Proposals as Proposal Guaranties, a bid bond executed by a corporate surety company satisfactory to the Owner, but such substitutions shall not be made until a period of three (3) days has elapsed after the date of opening Proposals.

3-4 REQUIREMENT OF CONTRACT BOND

The successful Bidder, at the time of the execution of the Contract, shall deposit with the Owner a surety bond for the full amount of the Contract. The form of bond shall be that furnished by the Owner, and the surety shall be acceptable to the Owner.

3-5 EXECUTION OF THE CONTRACT

The contract shall be executed by the successful Bidder. The bond, when required, shall be executed by the principal and the sureties, and executed Contract and Contract Bond shall be presented to the Owner within fifteen (15) days after the date of notice of the award of the Contract.

Each Contract must be executed in three (3) original counterparts, and there shall be executed original counterparts of the Contract Bond in equal number to the executed original counterparts of the Contract. One (l) copy each of such executed documents will be retained by the Owner and the Engineer, the third will be delivered to the Contractor.

3-6 FAILURE TO EXECUTE CONTRACT

Failure on the part of the successful Bidder to execute a Contract and an acceptable Contract Bond and acceptable insurance certificates as provided herein, within fifteen (15) days from the date of receipt of Contract documents from the Owner will be considered as just cause for the annulment of the award and the forfeiture of the proposal guaranty to the Owner, not as a penalty but in payment of liquidated damages sustained as a result of such failure.

SECTION 4. SCOPE OF WORK

4-1 INTENT OF THE PLANS AND SPECIFICATIONS

The intent of the contract is to prescribe a complete outline of work which the Contractor undertakes to do in full compliance with the contract, plans and specifications. The Contractor shall furnish all required materials, equipment, tools, labor, and incidentals, unless otherwise provided in the contract, and shall include the cost of these items in the unit prices bid for the several units of work. Contractor shall be solely responsible for all safety procedures and safety violations. The quantities appearing in the bid schedule of prices are estimates prepared for the establishment of pay item prices and the comparison of bids. Payment to the Contractor will be made for the actual measured quantities performed and accepted or material furnished and accepted according to the contract, and the scheduled quantities may be increased, decreased, or omitted as herein provided.

Under no circumstances shall the Contractor exceed any established pay item quantity without notification to the Engineer and receipt of written authorization as provided herein.

The latest edition of the State Specifications and Standard Specifications for Water and Sewer Construction in Illinois shall be the basis and govern this contract unless otherwise provided by special provision or exception.

4-2 SPECIAL WORK

Should any construction or requirement not covered by the Specifications be anticipated on any proposed Work, Special Provisions for the same will be prepared and included in the Proposal form, which Special Provisions shall be considered as a part of the Specifications the same as though contained fully herein.

4-3 CHANGES

The Owner reserves the right to make, in writing, at any time during work, changes in quantities, alterations in work, and the performance of extra work to satisfactorily complete the project. Such changes in quantities, alterations, and extra work shall not invalidate the contract nor release the surety, and the Contractor agrees to perform the work as altered.

If the alterations or changes in quantities significantly change the character of the work under the contract, whether or not changed by any such different quantities or alterations, an adjustment, excluding loss of anticipated profits, will be made to the contract. The basis for the adjustment shall be agreed upon prior to the performance of the work. If a basis cannot be agreed upon, then an adjustment will be made either for or against the Contractor in such amount as the Owner may determine to be fair and equitable.

If alterations or changes in quantities do not significantly change the character of the work to be performed under contract, the altered work will be paid for as provided elsewhere in the contract.

The term “significant change” shall be construed to apply only when the character of the work as altered differs materially in kind or nature from that involved or included in the original proposed construction or when a major item, defined as an item whose total original contract costs exceeds ten percent of the total original contract amount, is increased in excess of 125 percent or decreased below 75 percent of the original contract quantity.

All alterations, cancellations, extensions, and deductions shall be authorized in writing by the Owner before work is started. Such authorizations shall set up the items of work involved and the method of payment for each item.

The Contractor shall accept payment for alterations which result in an increase or decrease in the quantities of work to be performed according to the following:

A. All increases in work of the type which appear in the contract as pay items accompanied by unit prices will, except as provided under paragraph (C) herein, be paid for at the contract unit prices. Decreases in quantities included in the contract will be deducted from the contract at the unit bid prices. No allowance will be made for delays or anticipated profits.

B. Major items of work for which the quantities are increased by not more than 125 percent or reduced to not less than 75 percent of the original contract quantities will be paid for as specified in paragraph (a) above. Any adjustments for increased quantities for major items of work increased more than 125 percent shall only apply to that portion in excess of 125 percent of original contract quantities. Any adjustments made for major items of work which are decreased to less than 75 percent of the original contract quantities shall apply to the actual amount of work performed.

C. Extra work which is not included in the contract as pay items at unit prices and is not included in other items of the contract will be paid for according to Section 9-4.

4-4 PERIODIC AND FINAL CLEANUP

From time to time or as may be ordered by the Owner and immediately after completion of the Work, the Contractor shall at his own expense clean up and remove all refuse and unused materials of any kind resulting from the Work. Upon failure to do so within five (5) working days after receipt of written request from the Owner, the Work may be done by the Owner and the cost thereof be charged to the Contractor and be deducted from his Contract price. Upon completion of the Work, the Contractor shall remove all his equipment and put the area of the Work in a neat and clean condition and do all other cleaning required to complete the Work in a workmanlike manner, ready for use and satisfactory to the Owner.

All Cleanup shall be performed as specified in the various sections of these Specifications or in the Special Provisions.

4-5 LUMP SUM CONTRACTS

On lump sum Contract, when specified in Special Provisions, or Contracts containing lump sum items, the lump sum contract price shall include the furnishing and installation of all Work described in the Specifications and/or shown on the Plans.

4-6 LOCAL ORDINANCES AND REGULATIONS

The Contractor shall keep himself fully informed of all existing laws, ordinances, and regulations of the municipality affecting the work and/or material of this Contract. If any inconsistency is discovered between the Plans, Specifications and those covered by local municipal laws, ordinances, or regulations, it shall be reported to the Owner and Engineer.

4-7 PREFERENCE TO VETERANS

Attention is called to assure compliance with Illinois Revised State Chapter 126 Section 23. Preference to veterans upon public works: "In the employment and appointment to fill positions in the construction, addition to, or alteration of all public works undertaken or contracted for by the state, or by any political subdivision thereof, preference shall be given to persons who were engaged in the military or naval service of the United States in time of war".

SECTION 5. CONTROL OF THE WORK

5-1 PLANS AND WORKING DRAWINGS

The Contractor shall submit to the Engineer such shop, working, or layout drawings pertaining to the construction of the Work, as may be required. These drawings shall be reviewed by Engineer for general conformance with the design concept only. This review by the Engineer does not relieve the Contractor and/or fabricator/vendor of responsibility for conformance with the Contract documents (see 1-8) and applicable codes, all of which have priority over these shop, working and layout drawings. Corrections or comments made on the shop drawings by the Engineer during this review process do not relieve the Contractor from compliance with the requirements of the Contract documents (1-8) and applicable codes.

When the Contract includes Work adjacent to a railroad and false work, cofferdams, or sheeting is required, the Contractor shall submit to the Engineer for his approval and the Railroad Engineer's approval, plans for the false work, cofferdams, or sheeting by a Registered Structural Engineer. It shall be the responsibility of the Contractor to contact the railroad to determine how to meet their requirements. The cost of meeting those requirements shall be borne by the Contractor. The plans shall be submitted sufficiently in advance of the time the Contractor intends to start work to permit checking. No such work shall be started prior to receipt by the Contractor of approval of the Plans for the false work, cofferdams, or sheeting.

The cost of furnishing such Drawings shall be incidental to the contract and no additional compensation will be allowed the Contractor for any delays resulting therefrom.

5-2 CONFORMITY WITH PLANS AND SPECIFICATIONS

It is the intent of the Specifications that all Work performed and all materials furnished shall be in conformity with the lines, grades, cross section, dimensions and material requirements shown on the Plans or indicated in the Specifications.

In the event the Engineer finds the materials or the finished product in which the materials are used or the Work performed are not in conformity with the Engineering Plans and technical Specifications including tolerances and have resulted in an inferior or unsatisfactory product, the Work or material shall be removed and replaced or otherwise corrected by and at the expense of the Contractor.

5-3 COORDINATION OF COMPONENT PARTS OF THE CONTRACT

The Specifications, the accompanying Plans, the Proposal, the Special Provisions, and all other contract documents are intended to describe a complete Work and are essential parts of the Contract. A requirement occurring in any of them is binding. In case of discrepancy, figured dimensions shall govern over scaled dimensions, Plans shall govern over Specifications, Special Provisions shall govern over both Specifications and Plans, and quantities shown on the plans shall govern over those shown in the

Proposal. Neither the Owner, Engineer, nor the Contractor shall take advantage of any apparent error or omission in the Plans or Specifications, and the Owner shall be permitted to make such minor changes or alterations as may be deemed necessary for the fulfillment of the intent of the Plans and Specifications. Any corrections or alterations so made shall be subject to the provisions of Section 4-3.

5-4 COOPERATION BY CONTRACTOR

The Contractor will be furnished necessary copies of the Plans and Special Provisions, and he shall have one copy of each available on the work at all times during its prosecution. He shall give the work his constant attention to facilitate the progress thereof, and shall cooperate with the Owner and Engineer in every way possible. He shall have on the Work site at all times a competent, English-speaking representative authorized to receive orders and act for him and shall not replace him without prior written notification to the Owner.

5-5 UTILITIES

Not all of the gas, power, telephone or cable television lines, whether above or below ground, have been shown on the drawings. The location of existing underground utilities, such as water mains, sewers gas mains, etc., as shown on the drawings, have been determined form the best available information and are given for the convenience of the Contractor. The Contractor must assume responsibility for location and protection of all utilities, whether shown or not, and must realize that the actual locations of the utilities shown on the drawings may be different from the location indicated.

It is the responsibility of the Contractor to phone the Joint Utility Locating Information for Excavators (J.U.L.I.E.) at least 48 hours before excavation starts (except Saturday, Sunday and Holidays) phone toll free 1-800-892-0123. The Contractor shall also be responsible for having the "Dig Number" assigned as a result of the phone request available at the construction site and at his office.

It is understood and agreed that the Contractor has considered in his Proposal all of the permanent and temporary utility appurtenances shown or otherwise indicated on the Plans in their present positions and that no additional compensation will be allowed for any delays, inconvenience, or damage sustained by him due to any interference from the said utility appurtenances of the operation of moving them either by the utilities company or by the Contractor; or on account of any special construction methods required in prosecuting his work due to the existence of said appurtenances.

5-6 COOPERATION BETWEEN CONTRACTORS

If separate contracts are let for Work comprising an entire improvement, each Contractor shall conduct his Work so as not to interfere with or hinder the progress or completion of the Work being performed by other Contractors.

The Contractor shall as far as possible arrange his Work, and place and dispose of the materials being used so as not to interfere with the operations of the other contractors within the limits of the same improvement. He shall join his work with that of the others in an acceptable manner and shall perform it in proper sequence to that of the others. In case of dispute, the latest approved progress schedule shall govern.

5-7 CONSTRUCTION STAKES

Construction stakes and/or paint will be furnished and set by the Engineer to mark the general location, alignment, elevation and grade of the Work. The Contractor shall exercise proper care in the preservation of stakes set for his use or the use of the Engineer. The Contractor shall pay for the cost of replacing stakes damaged by his operation or those stolen by others.

5-8 AUTHORITY AND DUTIES OF OBSERVERS

Observers employed by the Owner or by the Engineer shall be authorized to observe the progress of the Work to determine if the Work is proceeding in accordance with the technical Plans and Specifications, and to perform such other duties as may be designated by the Engineer. However, the Engineer shall not be responsible for the construction means, methods, techniques, sequences or safety procedures and precautions in connection with the work by the contractors.

5-9 ENGINEER'S FIELD OFFICE AND/OR LABORATORY

When required by the Special Provisions, the Contractor shall furnish a field office and laboratory. The field office and/or laboratory shall be a weatherproof building for the exclusive use of the Engineer. It shall be independent of any building used by the Contractor. All keys to the building shall be turned over to the Engineer. The Engineer shall designate the location of the building and it shall remain on the site until released by the Engineer.

The building shall conform to the following requirements:

Floor space, not less than ..... 120 square feet

Height of ceiling, not less than..... 8 feet

Windows, not less than 3

Door, with lock approved by the Engineer 1

Instrument locker, 2 feet x 3 feet x 4 feet, with adjustable shelves
Hinged wall table ..... 3 feet x 6 feet

The Contractor shall provide lights, heat, and when electric power is available, summer air conditioning for the building. The conditions shall be acceptable to the Engineer.

When shown on the plans or specified in the Special Provisions, the Contractor shall furnish two (2) buildings conforming to the above requirements, one to be used as a field laboratory, and each to be located where designated by the Engineer.

With the approval of the Engineer, a mobile building or buildings of approximately the same dimensions and having similar facilities may be substituted for the above described building or buildings.

The cost of furnishing the building or buildings, light, heat, and air conditioning shall be paid for at the contract lump sum price for "FIELD OFFICE AND/OR LABORATORY". The office and/or laboratory shall remain the property of the Contractor when the Work is completed.

5-10 CONSTRUCTION OBSERVATION

All materials and each part or detail of the Work may be subject at all times to observation by the Engineer and the Owner, or their authorized representatives, and the Contractor will be held strictly to the true intent of the Contract documents in regard to quality of materials, workmanship and the diligent execution of the Contract. Observations may be made at the site or at the source of material supply whether mill, plant or shop. The Engineer, or his representatives, shall be allowed access to all parts of the Work and shall be furnished with such information and assistance by the Contractor as is required to make his observations and construction review. The duty of the Engineer to conduct observations and construction review of the Contractor's performance shall not include review of the adequacy of the Contractor's safety measures in, on, or near the construction site.

Engineer shall not at any time supervise, direct, or have control over any contractors' work, nor shall Engineer have authority over or responsibility for the means, methods, techniques, sequences, or procedures of construction selected or used by any contractor, nor for safety precautions and programs in connection with the contractors' work, nor for any failure of any Contractor to comply with laws and regulations applicable to contractors' work. Engineer neither guarantees the performance of any contractor nor assumes responsibility for any contractor's failure to furnish and perform its work. Engineer shall have no authority to stop the work of any contractor on the Project. The Engineer's efforts will be directed toward providing assurance for the Owner that the completed project will conform to the Plans and Specifications as prepared by the Engineer, to safeguard the Owner against variances and deviations from the Plans and Specifications, and to assist in a correct interpretation of the Plans and Specifications.

The Engineer shall not have control of the construction and does not have a right, duty or responsibility to stop work for any reason including any contractor's failure to follow proper safety precautions or any acts or omissions. The Engineer shall not be responsible for the acts, errors or omissions of any contractor or any of their agents or employees or any other person performing any of the Work under the Contract.

The Contractor shall, upon written notice from the Owner, remove or uncover such portions of the finished Work as he may direct, before the final acceptance of the same. After examination, the Contractor shall restore said portion of the Work to the standard required by the Contract documents. If the Work thus exposed or examined proves acceptable, the expenses of uncovering or removing and the replacing of the parts removed shall be paid for as Extra work, unless otherwise provided in the Contract documents, but if the Work so exposed or examined is unacceptable, the expense of uncovering or removing and the replacing of the same in accordance with the Contract documents shall be borne by the Contractor.

The Contractor shall supervise and direct the Work. He will be solely responsible for the means, ethods, techniques, sequences and procedures of construction.

Any reference to "supervision" by the Engineer in the Illinois Department of Transportation, Standard Specifications for Road and Bridge Construction or any other referenced documents shall be changed to "observation."

When the State and/or Federal Government is to pay a portion of the cost of the Work covered by the Contract, the Work shall be subject to the observation of the representatives of those Governments, but such observation shall in no sense make those Governments a part of the Contract.

5-11 REMOVAL OF DEFECTIVE AND UNAUTHORIZED WORK

Work done without lines and grades being given, or beyond the lines shown on the Plans or as given, except as herein provided, or any extra work done without authority will be considered as unauthorized and at the expense of the Contractor, and will not be measured or paid for. Work so done may be ordered by the Owner to be removed or replaced at the Contractor's expense.

All work, which has been rejected, shall be remedied or removed and replaced so as to comply with the Plans and Specifications by the Contractor at his own expense. Upon failure on the part of the Contractor to comply promptly with any order of the Owner made under the provisions of this article, the Owner shall, after giving written notice to the Contractor, have the authority to cause defective work to be remedied, or removed and replaced, or to cause unauthorized work to be removed, and to deduct the cost thereof from the contract price due or become due to the Contractor.

5-12 FINAL ACCEPTANCE

The Engineer shall make final acceptance of all Work included in the Contract, as soon as practicable after notification by the Contractor that the Work is completed. If the Work is not acceptable to the Engineer, he shall inform the Contractor in writing as to the particular defects to be remedied before final acceptance can be made.

The Contractor shall be relieved of normal maintenance responsibilities for any sections of the work, which are completed and accepted by the Owner prior to project completion. For the remainder of the Work, the guarantee period shall be as stated in Section 7-16.

When the Contract includes work for which the County, State and/or Federal Government is to pay a portion of the cost thereof, such work shall also be subject to the inspection and approval of the representatives of those governments.

5-13 PUBLIC CONSTRUCTION BID ACT, 30 ILCS 557/1

It is agreed that the Public Construction Bid Act, 30 ILCS 557/1, shall not be applicable to this contract pursuant to the home rule powers of the community.

SECTION 6. CONTROL OF MATERIAL

6-1 QUALITY OF MATERIALS

It is the intent of the Specifications that first-class materials shall be used throughout the Work, and that they shall be incorporated as to produce completed construction, which is workmanlike and acceptable in every detail. The cost or collecting and furnishing of samples of all test material shall be borne by the Contractor. The cost of all testing shall be borne by the Owner. Only materials, which conform to the requirements of these Specifications, shall be incorporated in the Work.

6-2 DEFECTIVE MATERIALS

All materials not conforming to the requirements of the Specifications shall be considered as defective and shall be removed from the Work; if in place, they shall be removed by the Contractor at his expense and replaced with acceptable materials. No defective materials, the defects of which have been subsequently corrected, shall be used until approval has been given. Upon failure of the Contractor to comply forthwith with any written order of the Owner pursuant to the provisions of this article, the Owner shall have authority to remove and replace defective materials and to deduct the cost of removal and replacement from any monies due to become due the Contractor.

6-3 TESTING MATERIALS

All materials should be tested and approved by the Engineer before incorporation in the Work. The Contractor shall give sufficient advance notice of placing orders to permit tests to be completed before the materials are incorporated in the Work and the Contractor shall afford such facilities as the Engineer may require for collecting and forwarding samples and making observations.

6-4 SAND, GRAVEL AND CRUSHED STONE

The source of sand, gravel and crushed stone construction shall be approved by the Engineer prior to usage. The approval shall be based upon testing of samples furnished by the Contractor and tested by the Engineer for conformance with Specifications. Approval shall be contingent upon the Contractor using materials on the job, which conform with the samples satisfactorily tested.

6-5 CONCRETE

Samples of concrete used in construction shall be taken by the Contractor and made into test cylinders in conformance with ASTM C31. The Owner shall provide the services of an independent testing laboratory to collect and test the cylinders in conformance with ASTM C39, and furnish a copy of test results to the Engineer. Any concrete, which tests indicate failed to conform to the Specifications, shall be removed and replaced at Contractor's expense. At the option of the Owner, the concrete may be accepted and agreed upon adjustment in payment.

6-6 MISCELLANEOUS MATERIALS

Fittings, valves, castings, hydrants, house service pipes, masonry blocks, bricks, manhole sections or other miscellaneous manufactured materials used in water and sewer construction shall be furnished with the implied guarantee that such materials conform with the requirements of the Specifications. The Engineer reserves the right to require a certified statement from the manufacturer of such materials that the specific materials have been inspected and tested and conform with the Specifications.

6-7 JOB SITE OBSERVATION

Regardless of any tests of materials made at the source, the Contractor shall carefully inspect all materials before installation and reject any materials, which have been damaged or have visible flaws. The Engineer also reserves the right to make such observation, but failure to detect irregularities does not relieve the Contractor of responsibility to remove and replace materials, which are found to be defective after installation.

6-8 STORED MATERIALS

If it is necessary to store materials, they shall be protected in such a manner as to insure the preservation of their quality and fitness for the Work. All stored materials shall be inspected at the time of use in the Work, even though they may have been inspected and approved before being placed in storage. The Contractor may use the right-of-way for storage of materials. If stockpiling is done outside the right-of-way, the additional space required shall be provided by the Contractor at his expense.

6-9 "OR EQUAL" CLAUSE

Whenever, in any of the Contract Documents, an article, material or equipment is defined by describing a proprietary product, or by using the name of a manufacturer, or vendor, the term "or equal", if not inserted shall be implied except where the Proposal provides for alternate bids. The specific article, materials, or equipment mentioned shall be understood as indication of the type function, minimum standard or design, efficiency and quality desired and shall not be construed in such a manner as to exclude manufacturer's products of comparable quality, design and efficiency. The Contractor shall comply with the requirements of the Contract Documents relative to an Owner's approval of materials and equipment before they are incorporated in the project.

SECTION 7. LEGAL REGULATIONS AND RESPONSIBILITY TO PUBLIC

7-1 LAWS TO BE OBSERVED

The Contractor shall at all times observe and comply with all Federal laws, State laws, County laws, local laws, ordinances, and regulations which in any manner affect the conduct of the Work, and all such orders or decrees as exist at the time Bids are advertised, of legislative bodies or tribunals having legal jurisdiction or authority over the work and no plea of misunderstanding or ignorance thereof will be considered. The Engineer shall not be responsible for determining whether the Contractor is in compliance with these laws, ordinances and regulations.

The Contractor shall indemnify and save harmless the Owner, the Engineer, and all of their officers, agents, employees and servants against any claim or liability, including legal fees, arising from or based on the violation of such law, ordinance, regulation, order or decree, whether by themselves or their employees.

7-1.01 INDEMNIFICATION

To the fullest extent permitted by law, the Contractor shall defend, indemnify and hold harmless Owner and REL and their respective officers, agents and employees, from and against all claims, damages, losses, costs, expenses, judgments and liabilities, including but not limited to attorney's fees, costs and expenses, arising out of or in connection with Contractor's performance of or failure to perform this Agreement, provided that any such claim, damage, loss, costs, expenses, judgments or liabilities are attributable to bodily injury, sickness, disease or death, or to injury or destruction of tangible personal property, including the loss of use resulting therefrom, that is caused in whole or in part by any act or omission of the Contractor, any subcontractor, anyone directly or indirectly employed by them or anyone for whose acts any of them may be liable, regardless of whether or not it is caused in part by any party indemnified hereunder.

Contractor shall defend, indemnify and hold harmless Owner, REL, and their respective officers, agents and employees from and against all claims, damages, losses, costs and expenses arising out of, relating to, or incurred in connection with the use by Contractor, its officers, agents, subcontractors and employees of any equipment, materials, tools, construction equipment, machinery, and/or motor vehicles owned or leased by Owner. The indemnification provided by this Section shall apply regardless of whether Owner consents to the use of equipment by Contractor.

In the event such indemnity as described above is prohibited by law, then said indemnity shall only be to the extent caused by the negligent acts or omissions of the Contractor, subcontractors, anyone directly or indirectly employed by any of them, or anyone for whose acts any of them may be liable, or to the extent allowed by applicable law.

The indemnification obligation under this paragraph shall not be limited in any way by any limitations on the amount or type of damages, compensation or benefits payable by or for the benefit of Contractor or any indemnities under any Worker's Compensation Act, Occupational Disease Act, Disability Benefits Act, or any other employee benefits act. The Contractor further agrees to waive any and all liability limitations based upon the Worker's Compensation Act court interpretations or otherwise.

Contractor agrees that a similar waiver of liability limitation will be incorporated in its agreements with subcontractors or anyone directly or indirectly employed by them. Contractor agrees that in the event it fails to incorporate such a waiver of liability limitation in its agreements with said subcontractors and others, then it will be responsible for any additional liability arising out of said failure. The defense and indemnification obligations set forth in this provision shall survive the termination or expiration of this Agreement.

Contractor further agrees that all future contracts in furtherance of this contract between Contractor and any of its subcontractors will designate Owner and REL as intended third party beneficiaries of that contract. Contractor hereby agrees to specifically label Owner and REL as an "intended third party beneficiaries" in all contracts entered in furtherance of this contract.

7-2 INSURANCE REQUIREMENTS

7-2.01 GENERAL

The Contractor and any Subcontractors shall obtain and thereafter keep in force for the term of the contract the insurance coverage specified in 7-2.02 MINIMUM INSURANCE REQUIREMENTS.

The Contractor shall not commence work under the Contract until all the insurance required by this section or any Special Provisions has been obtained. The insurance companies must be authorized to do business in the State of Illinois for Work in Illinois and the State of Indiana for Work in Indiana.

The insurance companies providing coverage shall be rated in the Best's Key Rating Guide with a rating not lower than A- and shall have a financial size category of not less than VII.

The Contractor shall be solely responsible for enforcing compliance with these insurance requirements by all Subcontractors of any tier.

A. PRIMARY INSURANCE

All insurance required of the Contractor shall be specifically endorsed so that it is Primary Insurance as to all additional insureds with respect to all claims arising out of operations by or on their behalf. If additional insureds have other applicable insurance coverage, those coverages shall be deemed to be on an excess or contingent basis.

B. NO WAIVER OF INSURANCE REQUIREMENT BY OWNER

Under no circumstances shall the Owner be deemed to have waived any of the insurance requirements of this Contract by any act or omission, including, but not limited to:

1. Allowing work by Contractor or any Subcontractor of any tier to start before receipt of certificates of insurance, endorsements, and other required insurance documents; or

2. Failure to examine, or to demand correction of any deficiency of, any certificate of insurance received.

The Contractor agrees that the obligation to provide insurance is solely the Contractor's responsibility and cannot be waived by any act or omission of the Owner.

C. INSURANCE DOES NOT LIMIT LIABILITY

The purchase of insurance by the Contractor under this Contract shall not be deemed to limit the liability of the Contractor in any way for damages suffered by Owner (e.g., in excess of policy limits, because of deductibles, or not covered by the policies purchased).

D. NOTIFICATION OF PERSONAL INJURY/PROPERTY DAMAGE

The Contractor shall notify the Owner, in writing, of any possible or potential claim for personal injury or property damage arising out of the work of this Contract promptly whenever the occurrence giving rise to such a potential claim becomes known to the Contractor.

7-2.02 MINIMUM INSURANCE REQUIREMENTS

The insurance coverage required of the Contractor and any Subcontractors shall be written for not less than the following, or greater if required by law:

A. Workers' Compensation and Occupational Disease Insurance in accordance with applicable state and federal laws, and Employer's Liability Insurance with a bodily injury per accident limit of liability of at least $ 500,000, bodily injury by disease limit each employee of $500,000 and bodily injury by disease policy limit of $500,000 or such greater sum as may be reasonably required by Owner.

B. ***Commercial General Liability Insurance*** provided by ISO form CG 0001 with a combined Bodily Injury and Property Damage limit of at least $1,000,000 per occurrence, $2,000,000 products and completed operations aggregate and $2,000,000 general aggregate, or such greater sum as may be reasonably required by Owner.

1. Completed Operations and Products liability insurance shall be maintained for a period of 2-years after completion and acceptance of the Project by Owner, or such longer period as may be reasonably required by the Owner.

2. The above policy shall include an endorsement identifying Owner, Robinson Engineering, Ltd, and any other parties as may be reasonably required by Owner or REL as Additional Insured. ISO endorsements CG 2010 and CG 2037 any edition, or equivalent forms, must be used to provide this coverage. Copies of the endorsements must be included with the certificate of insurance as required in paragraph L.

3. Claims-Made coverage triggers are not acceptable to Owner.

4. ISO form CG2503, Designated Construction Project(s) General Aggregate Limit or an equivalent form must be endorsed to the policy and identified on the certificate of insurance. An Owners and Contractors Protective Liability policy can be utilized in lieu of aggregate limits per project, (see 7-2.02O for OCP requirements)

5. The policy shall not contain a sunset provision, commutation clause or any other provision which would prohibit the reporting of a claim and the subsequent defense and indemnity that would normally be provided by the policy.

6. The policy shall not contain any provision, definition or endorsement which would serve to eliminate third party action over claims.

7. Residential Work exclusions or limitations, in any form, are not acceptable to Contractor.

C. ***Comprehensive Automobile Liability Insurance*** covering use of all owned, non-owned and hired vehicles with Bodily Injury and Property Damage limit of at least $1,000,000 Combined Single Limit, or such greater sum as may be reasonably required by the Owner. This policy shall include coverage for Owner, REL, and any other parties as may be reasonably required by Owner, for liability arising out of the actions of Contractor, whether by endorsement or otherwise.

D. ***Excess or Umbrella Liability Insurance*** limits of no less than $5,000,000 per occurrence for Employer's Liability, Commercial General Liability and Comprehensive Automobile Liability, in excess of the minimum policy limits stated below:

Employer's Liability	$500,000 / $500,000 / $500,000
Commercial General Liability	$1,000,000 per occurrence
Commercial General Liability	$2,000,000 general aggregate
Commercial General Liability	$2,000,000 completed operations aggregate
Comprehensive Auto Liability	$1,000,000 combined single limit

Excess/Umbrella coverage shall be provided as no less than Follow Form and shall name Owner, REL, and any other parties as may be reasonably required by Owner, as Additional Insured on a Primary and Non-Contributory basis.

E. ***Pollution Liability*** in the amount of $1,000,000 per occurrence and in the aggregate or such sum as may be reasonably required by the Owner. This requirement covers the Contractor's use of, transportation, removal and/or disposal of hazardous materials and/or pollutants. Additionally, this requirement must apply to any disposal site receiving hazardous materials and/or pollutants. Pollution means the actual or alleged discharge, dispersal, release, seepage, migration, growth, or escape of smoke, soot, fumes, acids, alkalis, toxic chemicals, mold, mildew, spores, fungi, microbes, bacterial matter, legionella pneumophila, asbestos, lead, silica, liquids or gases, waste materials, contaminants, or other irritants, into or upon land, the atmosphere, any structure on land, the atmosphere contained within that structure, or any watercourse or body of water, including groundwater. Radioactive matter shall also be considered a pollutant, except as otherwise covered or protected by insurance or protections provided pursuant to 42 U.S.C. § 2014(w), as amended, or Section 170 of the Atomic Energy Act of 1954, as amended.

F. ***Professional Liability*** in the amount of $2,000,000 per occurrence and in the aggregate or such sum as may be reasonably required by the Owner. This requirement covers the Contractor's duties that involve professional architectural, engineering, design or consultation work. Any applicable deductibles and/or retention's must be noted on the Certificate of Insurance. Policy exclusions are not allowed for pollution, including mold, fungi or bacteria including the vapor produced or arising therefrom. Please see the project *Special Provisions* for the project specific needs of this policy.

G. ***Property and Equipment*** Contractor shall purchase and maintain at its own discretion and expense, Builder's Risk/Installation Floater Insurance in an amount equal to the insurable value of the Contractor's property, whether off site or in transit, to cover any equipment, tools or tangible personal property. Contractor assumes all liability and risks, and agrees to waive all claims against Owner and REL for damage to or loss of equipment, machinery, tools, supplies and other tangible personal property owned or supplied by Contractor and utilized or intended to be utilized during the course of Contractor's Work. Any insurance carried by Contractor covering such damage or loss shall be endorsed with a waiver of subrogation in favor of Owner and REL. Any and all subcontractors agree to assume the same liabilities and risks as Contractor.

H. ***Each of Contractor's*** General Liability, Auto Liability, Pollution Liability, Professional Liability and Excess/Umbrella Liability policies must be endorsed as Primary and Non-Contributory as to any insurance maintained by the Additional Insured(s) and shown on the certificate of insurance.

I. ***An endorsement*** in favor of the Additional Insured(s) waiving the Contractor's and its insurer's rights of subrogation shall be issued with respect to the Commercial General Liability, Comprehensive Auto Liability, Pollution Liability, Professional Liability and Workers' Compensation and Employers Liability policies. Evidence of this endorsement must be noted on the certificate of insurance.

J. ***Self-funded*** or other non-risk transfer insurance mechanisms or deductibles/self-insured retentions greater than $25,000 per occurrence are not acceptable to Owner on any insurance coverage required in this agreement. If the Contractor has such a program, full disclosure must be made to Owner and REL prior to any consideration being given.

K. ***Any subcontractor*** employed by Contractor shall have equivalent coverage.

L. ***A Certificate of Insurance***, including copies of the Additional Insured endorsements, shall be sent to REL prior to the commencement of any Work (please see the sample attached at the end of Section 7). All Certificates of Insurance and Endorsements verifying the existence of the above required insurance shall be in form and content satisfactory and acceptable to Owner and REL and shall be submitted to REL in a timely manner so as to confirm Contractor's full compliance with these insurance requirements stated herein, throughout the entire term of this Agreement.

Certificates must be sent to: RELcertificates@thehortongroup.com

M. ***Contractor shall provide*** written notice via email to RELcertificates@thehortongroup.com of any cancellation notice received by Contractor from any insurer providing insurance as required in this Agreement within two (2) business days of Contractor's receipt of such notice.

N. ***Permitting Contractor*** to commence Work prior to RELs receipt of the required certificate shall not be a waiver of the Contractor's obligation to provide all of the above insurance. Acceptance by Owner or REL of insurance submitted by Contractor shall not relieve or decrease in any manner the liability of the Contractor for its performance under this Agreement.

In the event Contractor fails to obtain or maintain any of the foregoing required coverage, the Owner may purchase such coverage and charge the expense thereof to the Contractor, or may terminate this Agreement.

These Insurance provisions are intended to be a separate and distinct obligation on the part of Contractor. Therefore, these provisions shall be enforceable and Contractor shall be bound thereby regardless of whether or not the Indemnity provisions of this Agreement are determined at any time to be enforceable in the jurisdiction in which the Work covered by this Agreement is performed. The obligation of the Contractor to provide the insurance herein specified shall not limit in any way the liability or obligations assumed by the Contractor elsewhere in this Agreement.

In the event Contractor or its insurance carrier(s) defaults on any obligations under this Insurance provision, Contractor agrees that it will be liable for all reasonable expenses and attorneys' fees incurred by Owner in the enforcement of the terms of this provision.

O. ***Owner's And Contractor's Protective Liability Insurance***

If the Contractor is unable or unwilling to provide the required General Liability Additional Insured forms, an Owner's and Contractor's Protective Policy can be purchased as an acceptable alternate; Required limits of insurance;

1. Bodily Injury and Property Damage Combined

   $5,000,000 Each Occurrence

   $10,000,000 Annual Aggregate

2. The Contractor will furnish and maintain during the entire period of construction an Owner's and Contractor's Protective Liability policy written in the name of the Owner and REL with not less than the limits indicated. The named insureds shall be:

a. Owner
b. Robinson Engineering, Ltd.

3. Proof of insurance for the coverages required to be purchased by the Contractor, including the Owner's and Contractor's Protective Policy shall be submitted to REL for transmittal to the Owner for his approval prior to the start of construction. Proof of the Owner's Protective Policy shall consist of providing an entire copy of that policy to REL. With respect to all other coverages required to be purchased by the Contractor, proof of insurance shall consist of a Certificate of Insurance issued by the Contractor's insurance agency.

4. It is further understood that any insurance maintained or carried by Owner and Robinson Engineering, Ltd. shall be in excess of any coverage provided by any Contractor or Subcontractor.

P. ***Railroad Protective Insurance*** will be required by Special Provisions if needed.

Q. ***Builder's Risk Insurance*** is not provided by the Owner. The Contractor is responsible for any loss that would be insured by such coverage. On Contracts for construction of buildings, bridges, or other structures, all Builder's Risk coverage may be required by Special Provisions. Such coverage shall name the Owner, Contractor, subcontractors, and suppliers, as their interests may appear as named insureds.

7-3 PERMITS AND LICENSES

The Contractor, prior to commencing work, shall at his own expense procure all permits, licenses, and bonds necessary for the prosecution of the work, required by Municipal, County, State and Federal regulations, unless specifically provided otherwise in the Special Conditions of the Contract.

The Contractor shall also give all notice, pay all fees, and comply with all Federal, State, County and Municipal laws, ordinances, rules and regulations and building and construction codes bearing on the conduct of the Work.

7-4 PATENTS AND ROYALTIES

If any design, device, material or process covered by letters patent or copyright is used by the Contractor, he shall provide for such use by legal agreement with the owner of the patent or a duly authorized licensee of such owner, and shall save harmless the Owner and the Engineer from any and all loss or expense on account thereof, including its use by the Owner.

7-5 STATE AND FEDERAL PARTICIPATION

When the County, State, and/or the Federal Government pays all or any portion of the cost of the Work, the Work shall be subject to the inspection of the appropriate agency.

7-6 SANITARY PROVISIONS

The Contractor shall comply with all rules and regulations of the Federal, State, County, and local health departments, and shall take precautions to avoid creating unsanitary conditions. The Engineer shall not be responsible for determining whether the Contractor is in compliance with these rules and regulations.

7-7 PUBLIC CONVENIENCE AND SAFETY

The Contractor shall notify the Owner at least five (5) days in advance of the starting of Work, which might in any way inconvenience or endanger traffic, so that arrangements may be made, if necessary, for closing the road and providing suitable detours. The Contractor shall at all times conduct the Work as to insure the least obstruction to vehicular and pedestrian traffic. The convenience of the general public and of residents along the roadway shall be provided for in an adequate and satisfactory manner. (See also 7-9, 7-14 and 8-6.)

If a temporary road is required for the convenience of the general public and/or residents along the roadway, temporary road requirements will not be paid for separately, but will be incidental to the Contract and no extra compensation will be allowed.

7-8 BARRICADES AND WARNING SIGNS

When any section of road is closed to traffic, the Contractor shall provide, erect, and maintain barricades, red flags, signs and lights at each end of the closed section and at all intersecting roads in accordance with the Illinois Manual of Uniform Traffic Control Devices.

If during the progress of the work, it is necessary to provide access to private property along the road, the Contractor shall provide, erect, and maintain within the closed portion of the road, such barricades, signs, flags and lights as may be necessary to protect the Work and to safeguard local traffic.

When traffic is to be permitted to use the road during construction, the Contractor shall protect the work and provide for safe and convenient public travel by providing, erecting, and maintaining such barricades, red flags, and lights as are necessary.

The Contractor's responsibility for the work, as provided in Section 7-15, shall apply, even though barricades, signs, red flags, and lights are installed as required above.

The cost of furnishing and maintaining barricades, warning signs, red flags, and lights as required herein shall be incidental to the Contract and no extra compensation will be allowed. The Engineer shall not be responsible for determining whether the Contractor is in compliance with these rules and regulations.

7-9 DEBRIS ON TRAVELED SURFACE OR STRUCTURES

Where the Contractor's equipment is operated on any portion of the traveled surface or structures used by traffic on or adjacent to the section under construction, the Contractor shall clean the traveled surface of all dirt and debris at the end of each day's operation.

The cost of this work shall be included in the unit prices bid and no additional compensation will be allowed. The Engineer shall not be responsible for determining whether the Contractor is in compliance with these rules and regulations.

7-10 EQUIPMENT ON TRAVELED SURFACE AND STRUCTURES

The traveled surface and structures on or adjacent to the work shall be protected, from damage by lugs or cleats on treads or wheels of equipment.

All equipment used in the prosecution of the work shall comply with the legal loading limits established by the statutes of the State of Illinois or local regulations when moved over or operated on any traveled surface or structure unless permission in writing has been issued by the Owner. Before using any equipment, which may exceed the legal loading, the Contractor shall secure a permit, allowing ample time for making an analysis of stresses to determine whether or not the proposed loading would be within safe limits. The Owner will not be responsible for any delay in construction operations or for any costs incurred by the Contractor as a result of compliance with the above requirements. The Engineer shall not be responsible for determining whether the Contractor is in compliance with these rules and regulations.

7-11 USE OF EXPLOSIVES

When the use of explosives is necessary for the prosecution of the Work, the Contractor shall be governed by the rules and regulations of the Department of Mines and Minerals of the State of Illinois and any local regulations, which govern the use of explosives. The Engineer shall not be responsible for determining whether the Contractor is in compliance with these rules and regulations.

7-12 USE OF FIRE HYDRANTS

If the Contractor desires to use water from hydrants, he shall make application to the proper authorities, and shall conform to the municipal ordinances, rules or regulations concerning their use. Water from

hydrants or other sources shall be at the Contractor's expense unless otherwise provided in the Special Provisions.

Fire hydrants shall be accessible at all times to the Fire Department. No material or other obstructions shall be placed closer to a fire hydrant than permitted by municipal ordinances, rules or regulations, or within ten feet (10') of a fire hydrant, in the absence of such ordinances, rules or regulations.

7-13 PROTECTION AND RESTORATION OF PROPERTY

If corporate or private property interferes with the Work, the Contractor shall notify, in writing, the owners of such property, advising them of the nature or disposition of such property. The Contractor shall furnish the Owner with copies of such notifications and with copies of any agreements between him and the property owners concerning such protection or disposition.

The Contractor shall take all necessary precautions for the protection of corporate or private property, such as walls and foundations of buildings, vaults, underground structures of public utilities, underground drainage facilities, overhead structures of public utilities, trees, shrubbery, crops and fences contiguous to the Work, of which the Contract does not provide for removal. The Contractor shall protect and carefully preserve all official survey monuments, property marks, section markers, and Geological Survey monuments, or other similar monuments, until the Owner or an authorized surveyor or agent has witnessed or otherwise referenced their location or relocation. The Contractor shall take reasonable precautions to avoid disturbing any archeological and other historic remains encountered during construction. The Contractor shall notify the Owner of the presence of an such survey or property monuments or archeological and other historic remains as soon as they are discovered.

The Contractor shall be responsible for the damage or destruction of property of any character resulting from error, neglect, misconduct or omission in his manner or method of execution or non-execution of the Work, or caused by defective Work or the use of unsatisfactory materials, and such responsibility shall not be released until the Work shall have been completed and accepted and the requirements of the Specifications complied with.

Whenever public or private property is so damaged or destroyed, the Contractor shall at his own expense, restore such property to a condition equal to that existing before such damage or injury was done by repairing, rebuilding, or replacing it as may be directed, or he shall otherwise make good such damage or destruction in an acceptable manner. If he fails to do so, the Owner may, after the expiration of a period of forty-eight (48) hours after giving him notice in writing, proceed to repair, rebuild, or otherwise restore such property as may be deemed necessary, and the cost thereof shall be deducted from any compensation due, or which may become due the Contractor under his contract.

The Contractor shall remove all mailboxes within the limits of construction, which interfere with construction operations and shall erect them at temporary locations. As soon as construction

operations permit, he shall set the mailboxes at their permanent locations. The Contractor shall replace at his own expense any mailbox or post which has been damaged by his operations.

The cost of all materials required and all labor necessary to comply with the above provisions will not be paid for separately, but shall be considered as incidental to the Contract, unless otherwise specified in the Special Provisions.

7-14 PROTECTION AND RESTORATION OF TRAFFIC SIGNS

Any traffic sign within the limits of construction, which interferes with construction operations, may be removed by the Contractor when authorized by the traffic sign owner. Any traffic sign, which has been removed, shall be re-erected immediately by the Contractor at the temporary location designated by the traffic sign owner, and as soon as construction operations permit, the sign shall be set at its permanent location. The cost of all materials required and all labor necessary to comply with this provision will not be paid for separately, but shall be considered as incidental to the contract.

The Contractor shall replace at his own expense any traffic sign or post which has been damaged due to his operations.

Any traffic sign designated as critical by the traffic sign owner shall not be disturbed and no additional compensation will be allowed the Contractor for any delays, inconvenience, or damage sustained by him due to any special construction methods required in prosecuting his work due to the existence of such traffic signs.

7-15 CONTRACTOR'S RESPONSIBILITY FOR WORK

The Work shall be under the control and care of the Contractor until final acceptance or use or occupancy by the Owner. The Contractor shall assume all responsibility for injury or damage to the Work by action of the elements or from any other cause whatsoever, and shall rebuild, repair, restore, and make good, at his expense, all injuries or damages to the Work, except that when the Work is opened to usage by written order of the Owner, the provisions of this article shall not apply to damage caused by such use and not due to the Contractor's fault or negligence.

When materials are furnished to the Contractor by the Owner for inclusion in the work, the Contractor's responsibility for handling and installation of all such materials shall be the same as for materials furnished by him.

In case of suspension of Work by the Contractor, the Contractor shall be responsible for the Work and shall take such precautions as may be necessary to prevent damage to the Work, provide for normal drainage and shall erect any necessary temporary structures, signs, or other facilities at his expense.

7-16 GUARANTEE PERIOD

The Contractor shall warrant all Work performed for a period of one (1) year from the date of final acceptance in writing by the Engineer. In case of acceptance of a part of the work for use or occupancy prior to final acceptance of the entire Work, the guarantee for the part so accepted shall be for a period of one year from the date of such partial acceptance, in writing, by the Engineer.

In placing orders for equipment, the Contractor shall purchase same only under a written guarantee from the respective manufacturers that the equipment supplied will function satisfactorily as an integral part of the completed Work in accordance with the Plans and Specifications, and that the manufacturer will repair or otherwise make good any defects in workmanship or materials which may develop within a period of one (1) year from the date of final acceptance. Furthermore, the Contractor shall require that the manufacturer agree in writing at the time the order for equipment is placed that he will be responsible for the proper functioning of the equipment in cooperation with the Contractor, and that whenever necessary during the installation period or tuning up period following construction period, the manufacturer will supply without additional cost to the Owner, such superintendence and mechanical labor and any adjustments and additional parts and labor needed to make the equipment function satisfactorily, even if same was not shown on the approved shop drawings.

7-17 PERSONAL LIABILITY OF OWNER'S AGENTS

In carrying out the provisions of this contract, or in exercising any power or authority granted to the Owner, there shall be no personal liability upon any officer or authorized agent of the Owner provided the Owner is a governmental body, it being understood that all such persons act as agents and representatives of the Owner.

7-18 NO WAIVER OF LEGAL RIGHTS

The Owner and the Engineer shall not be precluded by any measurement, estimate, or certificate made either before or after the completion and acceptance of the Work and payment therefor, from showing the true amount and character of the Work performed and materials furnished by the Contractor, or from showing that any such measurement, estimate, or certificate is untrue or incorrectly made, or that the Work or materials do not conform in fact to the Contract. The Owner shall not be precluded, notwithstanding any such measurement, estimate, or certificate and payment in accordance therewith, from recovering from the Contractor and his sureties such damages as if it may sustain by reason of his failure to comply with the terms of the Contract. Neither the acceptance by the Owner, nor any representative of the Owner, nor any payment for or acceptance of the whole or any part of the work, nor any extension of time, nor any possession taken by the Owner, shall operate as a waiver of any portion of the Contract, or of any power herein reserved, or any right to damages herein provided. A waiver of any breach of the Contract shall not be held to be a waiver of any other or subsequent breach.

7-19 SAFETY

Contractor shall comply with State and Federal Safety regulations as outlined in latest revision of Federal Construction Safety Standards (Series 1926) and with applicable provisions and regulation of Occupation Safety and Health Administration (OSHA) Standards of the Williams-Steiger Occupational Health and Safety Act of 1970 (rev.). The Engineer shall not be responsible for determining the Contractor's compliance with these regulations.

The Contractor is solely responsible for the safety procedures, programs and methods of its employees, subcontractors of every tier, and agents. Contractor shall hold the Owner and the Engineer harmless for any and all damages resulting from violations thereof.

7-20 USE OF PRIVATE LAND

The Contractor shall not use any vacant lot or private land as a plant site, depository for materials, or as a spoil site without the written authorization of the owner of the land (or his agent), a copy of which authorization shall be filed with the Owner.

7-21 USE OF WATER

Contractors desiring to use water furnished by the Owner will be required to make application for extension to the proper authorities and conform to the rules and regulations provided in such cases by the municipal ordinances and pay the usual water rates.

7-22 COST OF SERVICES

The Contractor will be required to pay the established water rates for water obtained from the Owner. Large quantities of water for flushing trenches, filling mains, testing or other operations shall be drawn only at night or at times specifically authorized by the Owner.

The cost of all power, lighting and heating required during construction shall be paid by the Contractor and its costs merged in the contract price.

7-23 WORK IN BAD WEATHER

No construction work shall be done during stormy, freezing or inclement weather, except such as can be done satisfactorily, and to secure first-class construction throughout, and then only subject to permission of the Owner.

7-24 SUNDAY WORK

No work shall be performed under these specifications at night or on Sunday and legal holidays without the approval of the Owner. If it is found necessary to continue the work at night or on Sunday or on a legal holiday, the Contractor will be charged for the Engineering and observation at such times at the rate of Seven Hundred Fifty Dollars ($750.00) per day of eight (8) working hours for each person doing such work on the job, and the amount will be deducted from money due to the Contractor at the time of settlement.

7-25 WATCHMEN

Watchmen are to be provided by the Contractor at the site of the project to prevent loss, damage to property, or accidents.

7-26 CONSTRUCTION DEBRIS

The Contractor shall not conduct any generation, transportation, or recycling of construction or demolition debris, clean or general or uncontaminated soil generated during construction, remodeling, repair, and demolition of utilities, structures, and roads that is not commingled with any waste, without the maintenance of documentation identifying the hauler, generator, place of origin of the debris or soil, the weight or volume of the debris or soil, and the location, owner, and operator of the facility where the debris or soil was transferred, disposed, recycled or treated. This documentation must be maintained by the Contractor for 3 years.

7-27 SAMPLE INSURANCE CERTIFICATE

EMAIL ALL CERTIFICATES TO RELCERTIFICATES@THEHORTONGROUP.COM

ACORD®

CERTIFICATE OF LIABILITY INSURANCE

DATE (MM/DD/YYYY)

THIS CERTIFICATE IS ISSUED AS A MATTER OF INFORMATION ONLY AND CONFERS NO RIGHTS UPON THE CERTIFICATE HOLDER. THIS CERTIFICATE DOES NOT AFFIRMATIVELY OR NEGATIVELY AMEND, EXTEND OR ALTER THE COVERAGE AFFORDED BY THE POLICIES BELOW. THIS CERTIFICATE OF INSURANCE DOES NOT CONSTITUTE A CONTRACT BETWEEN THE ISSUING INSURER(S), AUTHORIZED REPRESENTATIVE OR PRODUCER, AND THE CERTIFICATE HOLDER.

IMPORTANT: If the certificate holder is an ADDITIONAL INSURED, the policy(ies) must be endorsed. If SUBROGATION IS WAIVED, subject to the terms and conditions of the policy, certain policies may require an endorsement. A statement on this certificate does not confer rights to the certificate holder in lieu of such endorsement(s).

PRODUCER	CONTACT NAME:
YOUR INSURANCE AGENT	PHONE (A/C, No, Ext): FAX (A/C, No):
	E-MAIL ADDRESS:

INSURER(S) AFFORDING COVERAGE	NAIC #
INSURER A : CARRIERS MUST BE RATED	
INSURER B : A- VII OR BETTER	
INSURER C :	
INSURER D :	
INSURER E :	
INSURER F :	

INSURED: YOUR NAME AND ADORESS

COVERAGES **CERTIFICATE NUMBER:** **REVISION NUMBER:**

THIS IS TO CERTIFY THAT THE POLICIES OF INSURANCE LISTED BELOW HAVE BEEN ISSUED TO THE INSURED NAMED ABOVE FOR THE POLICY PERIOD INDICATED. NOTWITHSTANDING ANY REQUIREMENT, TERM OR CONDITION OF ANY CONTRACT OR OTHER DOCUMENT WITH RESPECT TO WHICH THIS CERTIFICATE MAY BE ISSUED OR MAY PERTAIN, THE INSURANCE AFFORDED BY THE POLICIES DESCRIBED HEREIN IS SUBJECT TO ALL THE TERMS, EXCLUSIONS AND CONDITIONS OF SUCH POLICIES. LIMITS SHOWN MAY HAVE BEEN REDUCED BY PAID CLAIMS.

INSR LTR	TYPE OF INSURANCE	ADDL INSR	SUBR WVD	POLICY NUMBER	POLICY EFF (MM/DD/YYYY)	POLICY EXP (MM/DD/YYYY)	LIMITS	
	GENERAL LIABILITY						EACH OCCURRENCE	$ 1,000,000
	[X] COMMERCIAL GENERAL LIABILITY						DAMAGE TO RENTED PREMISES (Ea occurrence)	$ ANY LIMIT
	[ ] CLAIMS-MADE [X] OCCUR	Y	Y	POLICY NUMBER	EFF DATE	EXP DATE	MED EXP (Any one person)	$ ANY LIMIT
							PERSONAL & ADV INJURY	$ 1,000,000
	GEN'L AGGREGATE LIMIT APPLIES PER:						GENERAL AGGREGATE	$ 2,000,000
	[ ] POLICY [X] PRO-JECT [ ] LOC						PRODUCTS - COMP/OP AGG	$ 2,000,000
								$
	AUTOMOBILE LIABILITY						COMBINED SINGLE LIMIT (Ea accident)	$ 1,000,000
	[X] ANY AUTO						BODILY INJURY (Per person)	$
	[ ] ALL OWNED AUTOS [ ] SCHEDULED AUTOS	Y	Y	POLICY NUMBER	EFF DATE	EXP DATE	BODILY INJURY (Per accident)	$
	[X] HIRED AUTOS [X] NON-OWNED AUTOS						PROPERTY DAMAGE (Per accident)	$
								$
	[X] UMBRELLA LIAB [X] OCCUR						EACH OCCURRENCE	$ 5,000,000
	[ ] EXCESS LIAB [ ] CLAIMS-MADE	Y	Y	POLICY NUMBER	EFF DATE	EFF DATE	AGGREGATE	$ 5,000,000
	[ ] DED [ ] RETENTION $							$
	WORKERS COMPENSATION AND EMPLOYERS' LIABILITY Y/N						[X] WC STATU-TORY LIMITS [ ] OTH-ER	
	ANY PROPRIETOR/PARTNER/EXECUTIVE OFFICE/MEMBER EXCLUDED? [N]	N/A	Y	POLICY NUMBER	EFF DTE	EFF DATE	E.L. EACH ACCIDENT	$ 500,000
	(Mandatory in NH) If yes, describe under DESCRIPTION OF OPERATIONS below						E.L. DISEASE - EA EMPLOYEE	$ 500,000
							E.L. DISEASE - POLICY LIMIT	$ 500,000
	POLLUTION PROFESSIONAL			POLICY NUMBER	EFF DATE	EFF DATE	$1,000,000/1,000,000 AGG $1,000,000/2,000,000 AGG	

DESCRIPTION OF OPERATIONS / LOCATIONS / VEHICLES (Attach ACORD 101, Additional Remarks Schedule, if more space is required)

REL JOB NUMBER AND PROJECT NAME AND ADDRESS:

Additional Insured with respect to General Liability. Auto Liability and Umbrella/Excess Liability on a primary and noncontributory basis when required by written contract (Owner and Robinson Engineering ltd)) Owner is Certificate Holder. Waiver of Subrogation in favor of listed additional insureds with respect to General Liability, Auto Liability, Umbrella/Excess Liability and Workers' Compensation policies. Additional Insured with respect to General Liability coverage per ISO forms CG2Q10 and CG2037 or equivalent forms. Umbrella/Excess is on a follow form basis and is primary and non-contributory.

CERTIFICATE HOLDER	CANCELLATION
OWNER	SHOULD ANY OF THE ABOVE DESCRIBED POLICIES BE CANCELLED BEFORE THE EXPIRATION DATE THEREOF, NOTICE WILL BE DELIVERED IN ACCORDANCE WITH THE POLICY PROVISIONS.
	AUTHORIZED REPRESENTATIVE

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SECTION 8. PROSECUTION AND PROGRESS

8-1 SUBLETTING OR ASSIGNMENT OF CONTRACT

The Contractor shall not sublet, sell, transfer, assign, or otherwise dispose of the Contract or Contracts or any portion thereof, or of his right, title, or interest therein, without written consent of the Owner. In case such consent is given, the Contractor will be permitted to sublet a portion thereof, but shall perform with his own organization, Work amounting to not less than 50 per cent of the total Contract, except that any items designated in the Contract as "specialty items" may be performed by subcontract and may be deducted from the total Contract price before computing the amount of work required to be performed by the Contractor with his own organization. No subcontracts, or transfer of Contract, shall in any case release the Contractor of his liability under the Contract. All transactions of the Owner shall be with the Contractor; subcontractors shall be recognized only in the capacity of employees or workmen and shall be subject to the same requirements as to character and competence.

8-2 PROGRESS SCHEDULE

Promptly after the award of the contract, if requested, the Contractor shall submit to the Owner a satisfactory progress schedule, which shall show the proposed sequence of work, and how the Contractor proposes to complete the various items of work within the number of days set up on the contract. The progress schedule shall be reviewed and revised periodically as working conditions warrant. The Contractor shall confer with the Owner in regard to the prosecution of the Work in accordance with this schedule. This schedule shall be used as a basis for establishing major construction operations, and for checking progress of the Work.

8-3 PRE-CONSTRUCTION CONFERENCE

Unless the need for a preconstruction conference is waived by the Engineer, the Contractor shall make himself and his representatives available to meet with the Engineer and other representatives of the Owner, prior to the start of construction to discuss scheduling, handling of materials, payments, etc.

8-4 PROSECUTION OF THE WORK

The Contractor shall begin the Work to be performed under the contract not later than ten (10) days after the execution and acceptance of the Contract, unless otherwise provided, but not prior to the execution of the Contract.

8-5 COMPLETION DATE

The Contractor shall complete all Work on or before the stipulated completion date, or on or before a later date determined as specified herein; otherwise, the Owner may proceed to collect liquidated damages described hereinafter.

When a delay occurs due to unforeseen causes beyond the control and without the fault or negligence of the Contractor, including, but not restricted to, acts of the public enemy, governmental acts, fires, floods, epidemics, strikes, extraordinary delays in delivery of materials caused by strikes, lockouts, wrecks, freight embargoes, governmental acts, or acts of God, the time of completion shall be extended in whatever amount is determined by the Owner.

An "Act of God" means an earthquake, flood, cloudburst, cyclone, or other cataclysmic phenomena of nature beyond the power of the Contractor to foresee or make preparation in defense against. A rain, windstorm or other natural phenomenon of normal intensity, based on U.S. Weather Bureau reports, for the particular locality and for the particular season of the year in which the work is being prosecuted, shall not be construed as an "Act of God", and no extension of time will be granted for the delays resulting therefrom.

8-6 LIMITATIONS OF OPERATIONS

The Contractor shall conduct his work so as to create a minimum amount of inconvenience to vehicular and pedestrian traffic. At any time when, in the judgment of the Owner, the Contractor has obstructed or closed the road or is carrying on operations on a greater portion of a street than is necessary for the proper prosecution of the Work, the Owner may require the Contractor to finish the section on which Work is in progress before the Work is started on any additional section. (See also Section 7-7).

8-7 SUSPENSION OF WORK

The Owner shall have authority to suspend the Work wholly or in part, for such period of time as he may deem necessary, due to conditions unfavorable for the satisfactory prosecution of the Work, or to conditions which in his opinion warrant such action; or for such time as is necessary by reason of failure on the part of the Contractor to carry out orders given, or to perform any or all provisions of the Contract. No additional compensation will be paid the Contractor because of any costs caused by such suspension, except when the suspension is ordered for reasons not resulting from any act or omission on the part of the Contractor. If it becomes necessary to stop Work for an indefinite period of time, the Contractor shall store all material in such manner that they will not obstruct or impede the traveling public unnecessarily or become damaged in any way, take every precaution to prevent damage or deterioration of the Work performed, provided suitable drainage of the roadway, and erect temporary structures where necessary. The Contractor shall not suspend Work without written authority from the Owner. (See also Section 7-15).

8-8 DETERMINATION AND EXTENSION OF CONTRACT TIME FOR COMPLETION

When the time for completion of the Work contemplated is specified in the Contract, it is understood that the completion of the Work within the time specified is an essential part of the Contract. If the Contractor finds it impossible to complete the Work within the time specified in the Contract, he may, at

any time prior to the last thirty (30) days of the Contract time specified, make written request to the Owner for an extension of Contract time. He shall set forth in full in his request the reasons, which he believes justify the granting of his request. If the Owner finds that the Work is delayed because of conditions beyond the control of the Contractor, or that the quantities of work done, or to be done, are in excess, he shall promptly grant an extension of time for completion, which appears reasonable and proper. The extended time for completion shall then be considered as in effect the same as if it were the original Contract time for completion.

8-9 FAILURE TO COMPLETE THE WORK ON TIME

Should the Contractor fail to complete the Work within the Contract time the Contractor shall be liable to the Owner in the amount shown in the following schedule of deductions, as liquidated damages, and not as a penalty, for each day of overrun in the Contract time or such extended time as may have been allowed.

SCHEDULE OF DEDUCTIONS FOR EACH DAY OF OVERRUN IN CONTRACT TIME

Original Contract Amount		Daily Charge	
From more than	To and Including	Calendar Day	Work Day
$ 0	100,000	$ 475	$ 675
100,000	500,000	750	1,050
500,000	1,000,000	1,025	1,425
1,000,000	3,000,000	1,275	1,725
3,000,000	6,000,000	1,425	2,000
6,000,000	12,000,000	2,300	3,450
12,000,000	And over	5,800	8,125

8-10 DEFAULT ON CONTRACT

If the Contractor fails to begin the Work under Contract within the time specified, or fails to perform the Work with sufficient workmen and equipment or with sufficient materials to insure the completion of said Work within the Contract time, or shall perform the Work unsuitable, or shall neglect or refuse to remove materials or perform anew such Work as shall be rejected as defective and unsuitable, or shall discontinue the prosecution of the Work, or if the Contractor shall become insolvent or be declared bankrupt, or shall commit any act of bankruptcy or insolvency, or shall make an assignment for the benefit of creditors, the Owner shall give notice in writing to the Contractor and his surety of such delinquency, said notice to specify the corrective measures required.

If the Contractor, within a period of ten (10) days after said notice, shall not proceed in accordance therewith, the Owner shall have full power and authority to forfeit the rights of the Contractor and at its

option to call upon the surety to complete the Work in accordance with the terms of the contract, or it may take over the Work, including any or all materials and equipment on the ground as may be suitable and acceptable, and may complete the Work with his own forces, or may enter into a new agreement for the completion of said Contract according to the terms and provisions thereof, or use such other methods as, in its opinion, shall be required for the completion of said Contract in an acceptable manner.

All costs and charges incurred by the Owner, together with the cost of completing the work under Contract, shall be deducted from the Contract amount. In case the expense so incurred by the Owner shall be less than the sum which would have been payable under the Contract if it had been completed by the Contractor, the Contractor shall be entitled to receive the difference subject to any claims for liens thereon in case such expense shall exceed the sum which would have been payable under the Contract, the Contractor and the surety shall be liable and shall pay to the Owner the amount of such excess.

8-11 TERMINATION OF THE CONTRACTOR'S RESPONSIBILITY

Whenever the Work called for by the Contract shall have been completely performed on the part of the Contractor and all parts of the Work have been approved and deemed to be in compliance with the Technical Plans and Specifications by the Engineer, according to the Contract, and the final estimate paid, the Contractor's obligations shall be considered fulfilled, except as set forth in his Bond, in Section 7-18 and his one-year guarantee, in Section 7-16.

SECTION 9. MEASUREMENT AND PAYMENT

9-1 MEASUREMENT OF QUANTITIES

All Work completed under the Contract will be measured by the Engineer according to United States Standard Measures. The method of measurement shall be described in the Specifications or the Special Provisions.

9-2 SCOPE OF PAYMENT

The Contractor shall receive and accept the compensation as herein provided, in full payment for furnishing all materials, labor, tools and equipment; for performing all Work contemplated and embraced under the Contract; for all loss or damage arising out of the nature of the Work or from action of the elements; for any unforeseen difficulties or obstructions which may arise or be encountered during the prosecution of the Work until its final acceptance by the Owner; for all risks of every description connected with the prosecution of the Work; also, for all such expenses incurred by or in consequence of suspension or discontinuance of such prosecution of the work as herein specified, or for any infringement of patents, trademarks, or copyrights, and for completing the Work in an acceptable manner according to the Contract Documents.

Contractor will be paid in cash and/or negotiable warrants at intervals, and in accord with the terms of the Contract. Except for subdivision contracts, the Owner will retain ten percent (10%) of each periodic payment until final completion and acceptance by the Owner of all Work included in the Contract.

The payment of any current estimate prior to final acceptance of the Work by the Owner shall in no way constitute an acknowledgment of the acceptance of the Work, nor in any way prejudice or affect the obligation of the Contractor, at his expense, to repair, correct, renew, or replace any defects or imperfections in the construction or in the strength or quality of the materials used in or about the construction of the Work under Contract and its appurtenances, nor any damage due or attributable to such defects, which defects, imperfections, or damage shall have been discovered on or before the final inspection and acceptance of the Work. Defects, imperfections, or damage, shall be determined by the Engineer observing the work for compliance with the Plans and Specifications, and the Contractor shall be liable to the Owner for failure to correct the same as provided herein.

9-3 INCREASED OR DECREASED QUANTITIES

Whenever the quantity of any item of Work as given in the Proposal shall be increased or decreased, payment shall be made on the basis of the actual quantity completed at the unit price for such item named in the Proposal, except as otherwise provided in Sections 4-3 or in the detailed specifications for each class of Work.

9-4 PAYMENT FOR EXTRA WORK

Extra Work which results from any of the changes as specified in Section 4-3 shall not be started, except in case of an emergency, until receipt of a written authorization or Work order from the Owner, which authorization shall state the items of work to be performed and the method of payment for each item. Work performed without such order will not be paid for.

Extra work will be paid for:

A. Either at a lump sum price or at unit prices agreed upon by the Contractor and the Owner. (In case a Supplemental Agreement is signed between the Contractor and the Owner, the agreed prices pertaining thereto shall prevail).

B. If acceptable to the Engineer, on the following force account basis:

1. Labor. The Contractor will be paid the actual amount of wages for all labor and foreman in direct charge of the specific Work for each hour that said labor and foreman are actually engaged in such Work, to which cost shall be added twenty percent (20%) of the sum thereof.

2. Bond, Insurance, Tax, Welfare Fund and other Payments. The Contractor will receive the actual cost of Contractor's bond, public liability and property damage insurance, workmen's compensation insurance, social security tax, welfare fund and other payments, if any, in accordance with agreements applicable to the Contract, required for force account work, to which no percentage shall be added. The Contractor shall furnish satisfactory evidence of the rate or rates paid for such bond, insurance tax, welfare fund and other payments.

3. Materials. The Contractor will receive the actual cost for all materials which are an integral part of the finished Work, including freight charges as shown by the original receipted bills, to which shall be added fifteen percent (15%) of the sum thereof.

   The Contractor will be reimbursed for any materials used in the construction of the Work, such as sheeting, false work, form lumber, curing materials, etc., which are not an integral part of the finished Work. The amount of reimbursement shall be agreed upon in writing before such Work is begun, and no percent shall be added. The salvage value of such materials shall be taken into consideration in the reimbursement agreed upon.

4. Equipment. Machinery and equipment, which the Contractor has on the job for use on contract items, shall be used on extra Work as deemed necessary or desirable. The Contractor will be paid for all machinery and equipment used on extra work in accordance with the latest revision of "SCHEDULE OF AVERAGE ANNUAL EQUIPMENT OWNERSHIP EXPENSE WITH OPERATING COST" as issued by the Department of Transportation, State of Illinois, for the period that said machinery and equipment are in use on such Work, to which no percent shall be added. In the event that equipment is used which is not included in aforesaid publication, the latest edition of the "Compilation of Nationally Averaged Rental Rates for Construction Equipment" complied by Equipment Distributors, 615 West 22nd Street, Oak Brook, Illinois 60521, shall be used to determine equipment rental rates and no percent shall be added to the rates indicated in such publication.

9-5 PAYMENT FOR SUBCONTRACTING, EXTRA WORK

Where an authorized subcontractor performs some or all of the Work qualifying as an Extra Work item and compensation is to be based on the terms of paragraph 9-4 (2), the cost of labor, bonds, material and equipment shall be the cost to the subcontractor on these items and an additional allowance to the prime Contractor of five percent (5%) of all costs as determined in paragraph 9-4 (2) shall be made in such instances.

9-6 PARTIAL PAYMENTS

Once each month, the Contractor will make an approximate estimate, in writing, of the materials in place complete, the amount of Work performed, and the value thereof, at the contract unit prices. From the amount so determined of completed work there shall be deducted ten percent (10%) to be retained until after the completion of the entire Work to the satisfaction of the Owner, and the balance certified to the Owner for payment.

In addition, an estimate may, at the discretion of the Owner and upon presentation of receipted bills and freight bills, be made for payment of the value of acceptable non-perishable materials delivered at the Work site or in acceptable storage places and not used at the time of such estimate. The care and storage of such material shall be the Contractor's responsibility. In the absence of receipted bills, an estimate may, at the request of the Contractor and at the discretion of the Owner, be made for payment of the value of materials in acceptable storage places and not used at the time of the estimate, but in such an event payment shall be made of such amounts by a check requiring the endorsement of both the Contractor and materials supplier. Endorsement of such a check by the material supplier shall be construed a waiver of lien for the cost of materials covered by the check. Such materials, when so paid for by the Owner, shall become the property of the Owner, and in the event of default on the part of the Contractor, the Owner may use or cause to be used such materials in the construction of the Work

provided for in the Contract. The amount thus paid by the Owner shall be deducted from estimates due the Contractor as the material is used in the Work.

9-7 ACCEPTANCE AND FINAL PAYMENT

Whenever the Work provided for by the Contract shall have been completely performed on the part of the Contractor, and all parts of the Work have been deemed to be in substantial compliance with the Plans and Specifications by the Engineer and accepted by the Owner, a final estimate showing the value of the Work will be prepared by the Engineer as soon as the necessary measurements and computations can be made, all prior estimates upon which payments have been made being approximate only and subject to correction in the final payment. The amount of this estimate, less any sums that have been deducted or retained under the provisions of the Contract, will be paid to the Contractor as soon as practicable after the final acceptance, provided the Contractor has furnished to the Owner satisfactory evidence that all sums of money due for any labor, materials, apparatus, fixtures, or machinery furnished for the purpose of such Work have been paid or that the person or persons to whom the same may be due have consented to such final payment.

Neither the final payment on this contract by the Owner nor any provisions in the contract documents shall relieve the Contractor of the responsibility for negligence in the furnishing and installation of faulty materials or for faulty workmanship which shows up within the extent and period provided by law or within the guarantee period of one (1) year from final acceptance of the work performed under this Contract, whichever is greater, nor of the responsibility of remedying such faulty workmanship and materials.

The acceptance by the Contractor of the final payment shall constitute a release and waiver of all claims by the Contractor except those previously made and still unsettled.

9-8 OWNER'S RIGHT TO WITHHOLD CERTAIN AMOUNTS

The Owner may withhold, in addition to retained percentages, from payment to the Contractor, such an amount or amounts as may be necessary to cover:

A. Payments that may be earned or due for just claims for labor and materials furnished in and about the Work.
B. For defective Work not remedied.
C. For failure of the Contractor to make proper payments to his subcontractors.
D. For reasonable doubt that the contract can be completed for the balance then unpaid.

The Owner will disburse and shall have the right to act as agent for the Contractor in disbursing such funds as have been withheld pursuant to this paragraph to the party or parties who are entitled to payment therefrom. The Owner will render to the Contractor a proper accounting of all such funds disbursed in behalf of the Contractor.

The Owner also reserves the right, even after full completion and acceptance of the Work, to refuse payment of the final ten percent (10%) due the Contractor, until it is satisfied that all subcontractors, material suppliers, and employees of the Contractor have been paid in full.

9-9 RELEASE OF CLAIMS AND LIENS

Neither the final payment nor any part of the retained percentage shall become due until the Contractor shall deliver to the Owner a complete release of all claims or liens arising out of this contract, or receipts in full in lieu thereof and, if required in either case, an affidavit that so far as he has knowledge or information the release and receipts include all the labor and materials for which a lien or claim could be filed; but the Contractor may, if a subcontractor refuses to furnish a release or receipt in full, furnish a bond satisfactory to the Owner to indemnify the Owner against any claim or lien (in cases where such payment is not already guaranteed by surety bond). If any claim or lien remains unsatisfied after all payments are made, the Contractor shall refund to the Owner all monies that the latter may be compelled to pay in discharging such a lien, including all costs and a reasonable attorney's fee.

DIVISION II

Technical Specifications

EXCAVATION AND CLEANUP

SECTION 1. EXCAVATION AND BACKFILL FOR UNDERGROUND CONDUITS

1-1 DESCRIPTION

For the purpose of this section, underground conduits shall be considered sewer pipe, water main or any other pipe conduit indicated on the Plans. Wherever the term "pipe" or "pipe line" is used, it shall mean underground conduit.

Excavation and backfill shall include all excavation, backfilling, compacting, disposal of surplus material, restoration of all disturbed surface, and all other work incidental to the construction of trenches, including any additional excavation which may be required for manholes or other structures forming a part of the pipe line.

1-2 CONSTRUCTION DETAILS

1-2.01 SURFACE REMOVAL AND TOPSOIL PRESERVATION

Along the proposed pipe lines as indicated on the Plans, the Contractor shall remove the surface materials only to such widths as will permit a trench to be excavated which will afford sufficient room for proper efficiency and proper construction. Where sidewalks, driveways, pavements and curb and gutter are encountered, care shall be taken to protect such against fracture or disturbance beyond reasonable working limits. In areas specified on the Plans, topsoil suitable for final grading and landscaping shall be piled separately in locations approved by the Owner and preserved so that it may be restored after the remainder of the backfill is replaced.

1-2.02 WIDTH OF EXCAVATION

A. The bottom width of the trench at and below the top of the pipe and inside the sheeting and bracing, if used, shall be in accordance with Section 550.04 of the Standard Specifications, unless otherwise noted.

Note: The strength or class of pipe shall be as indicated on the Plans.

B. Trench sheeting and bracing or a trench shield shall be used as required by the rules and regulations of O.S.H.A. The Engineer shall not be responsible for determining whether the contractor is in compliance with this provision. The bottom of the trench excavation shall conform to the details shown on the Plan.

C. If these trench widths are exceeded without the written permission of the Engineer, the pipe shall be installed with a concrete cradle or with concrete encasement or a stronger pipe than originally specified shall be used as approved by the Engineer.

1-2.03 EXCAVATION BELOW GRADE

In cases where the excavation is carried beyond or below the lines and grades given by the Engineer, the Contractor shall, at his own expense, refill all such excavated space with suitable granular material.

1-2.04 ROCK EXCAVATION

A. GENERAL

Wherever "rock" is used as the name of an excavated material, it shall mean boulders or pieces of rock, concrete, or masonry measuring one-half (1/2) cubic yard or more, hard shale or solid ledge rock and masonry which requires for its removal the continuous use of pneumatic tools or drilling and blasting.

Before payment is allowed for "Rock Excavation", the Contractor shall be required to demonstrate the material cannot be removed "by hand pick" or by power operated excavator or shovel. No payment will be made for Rock Excavation unless air tools or explosives were used by the Contractor. No payment will be made for "Rock Excavation" unless the Engineer approves such payment in writing in advance upon being satisfied that the material meets the above criteria.

B. MEASUREMENT FOR PAYMENT

Where "Rock Excavation" is to be measured for payment, quantities will be determined by the Engineer. Rock required to be removed shall be computed by the cubic yard. Width for pay purposes shall be the measured width of rock removed, but shall not exceed the width specified in Section 550.04 of the Standard Specifications, plus any sheeting and bracing if required. Depth for pay purposes shall be the difference in elevation between the top and bottom of the rock as determined by the Engineer. Where rock is encountered in the bottom of the trench, the maximum depth for payment purposes will be six inches (6") below the bottom of the pipe. Where the proposal does not contain a pay item for "Rock Excavation", the additional cost of rock removal as defined by the specifications shall be paid on extra work basis. (Division I, Section 9-4).

C. PAYMENT

Payment shall be made at the Contract unit price per cubic yard of "Rock Excavation". These prices shall be full compensation for furnishing all materials; for all preparation, excavation and disposal of rock; and for all labor, equipment, tools and incidentals necessary to complete the item.

1-2.05 SUBSURFACE EXPLORATION

All information available to the Owner, if any, on subsurface exploration will be made available for examination by prospective Bidders. However, it is understood and agreed that the Owner shall in no way be held responsible for interpretation of this information, its accuracy or its thoroughness. Prospective Bidders shall make such subsurface explorations as they believe necessary to verify and supplement information received from the Owner.

1-2.06 EXPLORATORY EXCAVATION

A. GENERAL

Whenever, in the opinion of the Engineer, it is necessary to explore an excavate in advance of the Work to determine the best line and grade for the construction of the proposed pipe line, the Contractor shall make explorations and excavations for such purposes.

B. PAYMENT

The cost of such excavation will be paid at the contract unit price per foot for "Exploration Trench", or if no Bid Item is included, on an extra work basis.

1-2.07 BRACED AND SHEETED TRENCHES

A. GENERAL

Open-cut trenches shall be sheeted and braced or otherwise protected as required by any governing Federal or State laws and municipal ordinances, and as may be necessary to protect life, property, or the Work. In any event, the minimum protection shall conform to the recommendations in the Occupational Safety and Health Act Standards for Construction (OSHA). A sand box or trench shield may be used in lieu of sheeting as permitted by OSHA. When close-sheeting is used, it shall be so driven as to prevent adjacent soil from entering the trench either below or through such sheeting. Tight sheeting shall be used in that portion of the excavation in or along state and county highways below the intersection of a 1 to 1 slope line from the nearest face of the excavation to the edge of the pavement.

Where sheeting and bracing are used, the trench width shall be increased accordingly. The sheeting will be driven to the full depth of work, or to a depth where the soil has the stability necessary to meet the OSHA standards, whichever is lower. The shallower depth of required sheeting may be established by soil boring and analysis, to be performed at the Contractor's sole cost. The owner shall have the right of consent in the selection of the soils engineer for the sampling and analysis. This provision shall not relieve the contractor, in any degree, from his responsibilities under the contract.

Sheeting and bracing, which are required to be left in place shall be cut off at the specified elevation. Trench bracing, except that specified to be left in place, may be removed when the backfilling reaches the said bracing's level. All sheeting except that required to be left in place may be removed as the excavation is refilled, in such a manner as to avoid bank cave-in(s) or disturbance to the adjacent area(s) or structure(s). The voids left by the withdrawal of the sheeting shall be carefully filled by jetting, vibrating, ramming or other satisfactory means.

B. PAYMENT

Payment for sheeting and bracing, and all other Work incidental to sheeting and bracing, shall not be made separately but shall be included in the Contract price for the pipe size, except when ordered left in place.

Payment for timber sheeting left in place when shown on the plans or directed by the Engineer shall be made at the Contract unit price per 1,000 board feet of "Timber Sheeting Left in Place."

Payment for steel sheet piling when specified shall be made at the Contract unit price per square foot for "Steel Sheet Piling."

Payment for steel sheet piling left in place when shown on the plans or directed by the Engineer shall be made at the Contract unit price per square foot for "Steel Sheet Piling Left in Place."

1-2.08 TRENCHES WITH SLOPING SIDES, LIMITED

The Contractor may, at his option, where working conditions and right-of-way permit, excavate pipe line trenches with sloping sides, but with the following limitations:

A. In general, only braced and vertical trenches will be permitted in traveled streets, alleys or narrow easements.

B. Where trenches with sloping sides are permitted, the slopes shall not extend below the top of the pipe, and trench excavations below this point shall be made with vertical sides with widths not exceeding those specified hereinbefore for the various sizes of pipe.

1-2.09 SHORT TUNNELS

In some instances, trees, fire hydrants, sidewalks and other obstructions may be encountered, the proximity of which may be a hindrance to open-cut excavation. In such cases, the Contractor shall excavate by means of short tunnels in order to protect such obstructions against damage. Where such obstructions are shown on the Plans, short tunnel work shall be considered incidental to the construction of the pipe line and shall not be grounds for extra payment or payment for tunnel work. Where such obstructions are not shown on the Plans, payment will be at the Contract unit price or as extra work in accordance with Division I, Section 9-4.

1-2.10 PILING EXCAVATION MATERIAL

All excavated material shall be stockpiled to avoid obstructing streets, sidewalks and driveways. Excavated material suitable for backfilling shall be stockpiled separately on the site. No material shall be placed closer than 2'0" to the edge of an excavation. Fire hydrants under pressure, valve pit covers, valve boxes, curb top boxes, or other utility controls shall be left unobstructed and accessible until the Work is completed. Gutters shall be kept clear or other satisfactory provisions made for street drainage. Natural watercourses shall not be obstructed or polluted. Surplus material and excavated material unsuitable for backfilling shall be transported and disposed of off the site in disposal areas obtained by the Contractor.

1-2.11 REMOVAL OF WATER

The Contractor shall at all times during construction provide and maintain ample means and devices with which to promptly remove and properly dispose of all water entering the excavations or other parts of the Work until all Work to be performed therein has been completed. No sanitary sewer shall be used for disposal of trench water, unless specifically approved by the Engineer and then only if the trench water does not ultimately arrive at existing pumping or sewage treatment facilities. No water containing settle able solids shall be discharged into storm sewers.

1-2.12 BLASTING

Blasting for excavation will be permitted only after securing the approval of the Owner and only when proper precautions are taken for the protections of persons and property. The hours of blasting will be reviewed by the Owner. Any damage caused by blasting shall be repaired by the Contractor at his expense. The Contractor's methods of procedure in blasting shall conform to Federal and State laws and municipal ordinances and O.S.H.A. rules and regulations. The Engineer shall not be responsible for determining whether the contractor is in compliance with these rules and regulations.

1-2.13 SAFETY

A. BARRICADES, GUARDS AND SAFETY PROVISIONS

To protect persons from injury and to avoid property damage, adequate barricades, construction signs, lights and guards as required shall be placed and maintained by the Contractor at his expense during the progress of the construction Work and until it is safe for traffic to use the roads and streets. All material piles, equipment and pipe which may serve as obstructions to traffic shall be enclosed by fences or barricades and shall be protected by proper lights when the visibility is poor. The rules and regulations of O.S.H.A. and appropriate authorities respecting safety provisions shall be observed. The Engineer shall not be responsible for determining whether the contractor is in compliance with these rules and regulations.

B. STRUCTURE PROTECTION

Temporary support, adequate protection and maintenance of all underground and surface structures, drains, sewers and other obstructions encountered in the progress of the Work shall be furnished to the Contractor at his expense. Any structures which may have been disturbed shall be restored upon completion of the Work.

C. PROTECTION OF PROPERTY AND SURFACE STRUCTURES

Trees, shrubbery, fences, poles and all other property and surface structures shall be protected during construction operations unless their removal for purposes of construction is authorized by the Engineer. Any fences, poles, or other man-made surface improvements which are moved or disturbed by the Contractor shall be restored to the original conditions, after construction is completed, at the Contractor's expense. Any trees, shrubbery or other vegetation which are approved for removal or ordered for removal by the Engineer in order to facilitate construction operations shall be removed completely, including stumps and roots, by the Contractor. Responsibility for any damage or claims for damage caused by construction operations to shrubbery or other landscape improvements which were not authorized for removal by the Engineer shall be assumed by the Contractor.

1-2.14 DEVIATIONS OCCASIONED BY STRUCTURES OR UTILITIES

Wherever obstructions are encountered during the progress of the Work and interfere to such an extent that an alteration in the plan is required, the Engineer shall have the authority to change the Plans and order a deviation from the line and grade or arrange with the owners of the structures for the removal, relocation or reconstruction of the obstructions. Where gas, water, telephone, electrical, hot water, steam, or other existing utilities are an impediment to the vertical or horizontal alignment of the proposed pipe line, the Engineer shall order a change in grade or alignment or shall direct the Contractor to arrange with the owners of the utilities for their removal.

1-2.15 INTERRUPTION TO UTILITIES

The Contractor shall proceed with caution in the excavation and preparation of the trench so that the exact location of underground structures may be determined. Prior to proceeding with trench excavation, the Contractor shall contact all utility companies in the area to aid in locating their underground services.

The Contractor shall take all reasonable precautions against damage to existing utilities. However, in the event of a break in an existing water main, gas main, sewer or underground cable, he shall immediately notify the responsible official of the organization operating the utility interrupted. The Contractor shall lend all possible assistance in restoring services and shall assume all cost, charges, or claims connected with the interruption and repair of such services if the location of said utility was marked by the owner thereof prior to excavation.

1-2.16 MAINTENANCE OF TRAFFIC AND CLOSING OF STREETS

The Contractor shall carry on the Work in a manner which will cause a minimum of interruption to traffic, and may close to through travel not more than two consecutive blocks, including the cross street intersected. Where traffic must cross open trenches, the Contractor shall provide suitable bridges at street intersections and driveways. The Contractor shall post suitable signs indicating that a street is closed and necessary detour signs for the proper maintenance of traffic. Prior to closing of any streets, the Contractor shall notify responsible municipal authorities at least five (5) days in advance of the starting of the Work, unless otherwise approved by the municipality.

1-2.17 CONSTRUCTION IN EASEMENTS

In easements across private property, the Contractor shall confine all operations in the easement area and shall be responsible and liable for all damage outside of the easement area. Trees, fences, shrubbery or other type of surface improvements located in the easements will require protection during construction. The provisions of Section 1-2.14C above shall apply to all easement areas as well as to public right-of-way. Precautions shall be taken by adequate sheeting or other approved method to prevent any cave-in or subsidence beyond the easement limits or damage to improvements within the easement. In general, the easement area is intended to provide reasonable access and working area for efficient operation by the Contractor. Where easement space for efficient operation is not provided, the Contractor shall be responsible for organizing his operations to perform within the restrictions shown on the Plans. The Owner shall make available to the Contractor a copy of the construction easements.

1-2.18 UNDERGROUND CONDUIT CONSTRUCTED IN TUNNEL

A. GENERAL

Where shown on the plans or where specifically authorized by the Engineer, pipe lines shall be constructed in tunnel. This work will be made in accordance with requirements of any permits obtained by the Owner from railroads or state or county highway departments for tunnel work or in accordance with the following paragraph.

B. MATERIALS

Pipe materials shall be as shown on the Plans or as described in the Special Provisions.

C. EXCAVATION AND LAYING

Requirements for excavation and laying and for joints shall be those applicable for the type of pipe line involved, unless otherwise specified.

Before starting excavations for tunnel shafts or jacking or augering pits, the Contractor shall submit drawings of proposed sheeting and bracing arrangements which have been prepared, signed and sealed by a structural Engineer registered in the State of Illinois for Work in Illinois and by a structural Engineer registered in the State of Indiana for Work in Indiana.

An adequate ventilation system shall be provided to properly ventilate all parts of the tunnel.

D. METHODS OF CONSTRUCTION

1. The tunnel shall be only of sufficient width and height to provide free working space. The sides and roof of the tunnel shall be braced sufficiently to support the external loads and to prevent caving, bulging, and settlement of the earth.

2. The Contractor shall backfill all tunnels with well compacted sand, fine gravel or stone screenings as rapidly as the conditions permit.

3. The backfill material shall be deposited in the tunnel in such a manner as not to injure or disturb the pipe. The filling of the tunnel shall be carried on simultaneously on both sides of the pipe in such a manner that injurious side pressures do not occur. Special care shall be taken to compact the backfill under the haunches of the pipe. The remainder of the tunnel, or such portion of the remainder as may be possible, shall then be backfilled by one of the following methods, at the option of the Contractor.

    a. The material shall be deposited in uniform layers not to exceed twelve inches (12") thick (loose measure) and such layer either inundated or deposited in water.

b. The tunnel shall be backfilled with loose material or only partly backfilled at a time, if necessary, and settlement secured in either case by introducing water through holes jetted into the material to a point approximately two feet (2') above the top of the pipe.

4. If neither of the above methods is practicable or can be used for only a portion of the backfill, the remainder of the tunnel shall be completely backfilled with material carefully deposited in uniform layers and each layer compacted by ramming or tamping with appropriate tools.

5. When sheeting and bracing have been used, sufficient bracing shall be left across the trench as the backfilling progresses to hold the sides and top firmly in place without caving or settlement before the backfilling has been placed. This bracing may be removed as soon as practicable.

6. Any depressions which may develop within the area involved in the construction operations due to settlement of the backfilling material shall be filled.

E. USE OF CASING PIPE

The Contractor may use metal casing pipe as a tunnel liner in place of timber shoring for tunnel sections. The design data for such pipe, including, but not necessarily limited to, the diameter, gauge, type of pipe, method of placing and installation will be submitted for the owner's review. The void space between tunnel liners or casing pipe and the carrier pipe shall be filled with compacted sand or other approved material.

F. JACKING OR BORING OF PIPE

The Contractor may, subject to the approval of the Owner, use special cast iron or specially designed reinforced concrete jacking pipe jacked and/or bored into position with or without tunnel liners, for tunneled sections pipe.

G. MEASUREMENT AND PAYMENT

Underground conduit constructed in tunnel will be paid for at the unit prices Bid for "Underground Conduit Constructed in Tunnel" for the various type and sizes for the actual length of tunnel Work. Payment shall include all labor, materials and equipment necessary to construct the conduit and tunnel, complete in place, including excavation and backfill, shoring and bracing, furnishing and laying casing pipe where required and carrier pipe, and all other Work necessary for a complete installation.

1-2-19 SANITARY SEWERS

A. GENERAL

The methods of excavating and backfilling sanitary sewer pipe shall be in compliance with the latest edition of the Illinois Department of Transportation, "Standard Specifications for Road and Bridge Construction", and the Metropolitan Water Reclamation District of Greater Chicago, "Manual of Procedure", latest revision. Where there is a conflict of these specifications, the MWRDGC, "Manual of Procedure" shall be used.

B. MATERIAL

Pipe material shall be as shown on the Plans or as described in the Special Provisions. No substitution of material shall be made without written approval from the Owner.

C. EXCAVATION AND BEDDING

The trench shall be excavated to an elevation to allow for the following bedding.

Bedding, other than concrete embedment, shall consist of gravel, crushed gravel, crushed stone or crushed slag, 1/4" to 1" in size. As a minimum, the material shall conform to the requirements of Article 1004.01 of the State Specifications or ASTM Designation C-33. The gradation shall conform to Section 1004, gradation CA 11 or CA 13 or to ASTM Gradation No. 67. The pipe shall be laid so that it will be uniformly supported and the entire length of the pipe barrel will have full bearing. No blocking of any kind shall be used to adjust the pipe to grade except when used with embedment concrete. Bedding shall be required for all sewer construction, except ductile iron pipe, and shall be of a thickness equal to 1/4 of the outside diameter of the sewer pipe with a maximum thickness of eight inches (8") but shall not be less than four inches (4").

Where unsuitable material is encountered at the grade established, all such unsuitable soil shall be removed under the pipe and for the width of the trench, and shall be replaced with well compacted bedding material, to the satisfaction of the Engineer.

Where rock is encountered, it shall be removed below grade and replaced with a cushion of well compacted bedding material having a thickness under the pipe of not less than eight inches (8").

The cost of furnishing, placing and compacting bedding material will be considered as incidental work and no additional compensation will be allowed.

D. BACKFILLING

The backfilling of the sanitary sewer pipe trench shall be the same as for storm sewer pipe described in Section 550.07 of the Standard Specifications.

E. METHOD OF MEASUREMENT

The method of measurement shall be the same as for storm sewer pipe described in Section 550.09 of the Standard Specifications except measurements will be made to the center of manholes.

F. BASIS OF PAYMENT

This work will be paid for at the Contract unit price per foot for "Sanitary Sewer" of the type and diameter specified and measured as specified.

"Trench Backfill", when specified, will be measured and paid for at the Contract unit price per foot unless otherwise stated in the Special Provisions or contract documents.

1-2.20 WATER MAINS

A. GENERAL

The method of excavating and backfilling water mains shall be in compliance with the latest edition of the Illinois Department of Transportation, "Standard Specifications for Road and Bridge Construction," and those below.

B. MATERIAL

Pipe material shall be as shown on the Plans or as described in the Special Provisions. No substitution of material shall be made without written approval of the Owner.

C. EXCAVATION AND BEDDING

The trench shall be excavated to an elevation to allow the minimum cover over the pipe as called for on the plans. Provision must be made by the Contractor to allow for any future cuts to be made to the ground over the pipe to assure that the minimum cover is maintained.

Bedding as described in Section 1-2.21C for sanitary sewers shall be required for all water mains, except ductile iron pipe that requires no bedding. The method of bedding for unsuitable material and where rock is encountered shall also comply with the conditions of that Section.

The cost of furnishing, placing and compacting bedding material will be considered as incidental work and no additional compensation will be allowed.

D. BACKFILLING

The backfilling of the water main pipe shall be the same as for storm sewer pipe as described in Section 550.07 of the Standard Specifications except that the moist fine aggregate backfill to the elevation of the center of the pipe will not be required for ductile iron pipe. For PVC or any other type of pipe, the moist fine aggregate shall be

brought to a level 12" above the top of the pipe and it shall be compacted as described in that Section.

E. METHOD OF MEASUREMENT

"Water main" pipe of the different types and diameters will be measured by the lineal foot in place.

Unless they are listed as separate Bid items, the water main item shall include all fittings required and all other material, except trench backfill within the specified trench.

F. BASIS OF PAYMENT

This work will be paid for at the Contract unit price per lineal foot for "Water main" of the type and diameter specified and measured as specified.

"Trench Backfill", when specified, will be measured and paid for at the Contract unit price per foot, unless otherwise specified in the special provisions or contract documents.

SECTION 2. RESTORATION OF SURFACES

2-1 GENERAL

Restoration of surfaces shall include the removal of the existing surface, the disposal of surplus material, and the construction of new surfaces as indicated on the plans or Special Provisions. The type of surface restoration required shall be shown on the Plans or described in the Special Provisions.

2-2 CONSTRUCTION DETAILS

2-2.01 TEMPORARY SURFACE OVER TRENCH

Wherever conduits are constructed under traveled roadways, driveways, sidewalks, or other traveled surfaces, a temporary surface shall be placed over the top of the trench as soon as possible after compaction, as specified above, has been satisfactorily completed. The temporary surface shall consist of a minimum of six inches (6") of coarse aggregate conforming to the current specifications of the State Specifications for Grade No. CA-9 or CA-10. The top of the temporary surface shall be smooth and meet the grade of the adjacent undisturbed surface. The temporary surface shall be maintained at the Contractor's expense until final restoration of the street surface is completed, unless specific items for temporary aggregate is specified. No permanent restoration of street surface shall be initiated until authorized by the Engineer.

2-2.02 REMOVAL OF PAVEMENT, SIDEWALK, DRIVEWAY AND CURB

Wherever the pipe is located along or across an improved surface, the width of the trench shall be held as nearly as possible to the maximum width specified in Section 1-2.02. Where brick or concrete pavement, sidewalk, driveway or curbing is cut, the width of the cut shall exceed the actual width of the top of the trench by twelve inches (12") on each side or a total of two feet (2'). Exposed surfaces of portland cement or asphaltic concrete shall be cut with a pavement saw before breaking. Care shall be taken in cutting to insure that a straight joint is sawed.

2-2.03 REPLACEMENT OF PERMANENT TYPE PAVEMENT, SIDEWALKS, DRIVEWAYS, CURBS, GUTTERS AND STRUCTURES.

The Contractor shall restore (unless otherwise specified or ordered by the Engineer) all permanent type pavements, sidewalks, driveways, curbs, gutters, shrubbery, fences, poles and other property and surface structures removed or disturbed during or as a result of construction operations to a condition which is equal in appearance and quality to the condition that existed before the Work began. The surface of all improvements shall be constructed of the same material and match in appearance the surface of the improvement which was removed. Where trench backfill is used, the restoration shall be made as soon as possible after jetting of the backfill has been completed.

2-2.04 REPLACING EXISTING TEMPORARY STREET AND ALLEY SURFACES

A. GENERAL

For the purpose of this specification, all existing street and alley surfaces shall be considered temporary except:

(1) concrete or brick pavements; (2) an asphaltic concrete or a bituminous treated surface over a soil cement, concrete, crushed stone or selected gravel base. Specifically included as temporary street surfaces, shall be compacted earth, cinders, shale, mixtures of gravel and earth or crushed stone and earth, whether or not these respective materials are further stabilized by road oil or bituminous surface treatment. This work should not be confused with Temporary Surface Over Trench as specified in Section 2-2.01.

Where conduits are constructed under temporary street or alley surfaces, or where such surfaces are used for the placement of backfill material or are disturbed by construction operations, the Contractor shall reconstruct, by grading and shaping, the entire width of roadway, and any drainage facilities which may have existed, to the original condition at the Contractor's expense, including that portion within the specified trench width where removal and restoration is paid for under a separate payment item.

Where, in the opinion of the Engineer, the conduit is located in the traveled portion of the temporary street or alley traveled surface, a new temporary surface shall be constructed over the trench, as specified in Section 2-2.01 of this Division. After this surface has been placed, it shall be maintained by the Contractor until final restoration is authorized. Just prior to final restoration, the entire width of the street to be restored shall be scarified. For final surface restoration, the Contractor shall apply a bituminous treatment to the entire width of the traveled surface, as ordered by the Engineer. The bituminous treatment shall consist of the application of a bituminous prime coat and a bituminous surface treatment corresponding to the materials and construction methods described in the State Specifications for bituminous surface treatment, Class A-1, A-2, or A-3 as specified, or shown in the bid items.

The Engineer reserves the right to order the omission of Bituminous Surface Treatment in any locations where such omission may be, in his opinion, in the public interest.

B. MEASUREMENT

Measurement for purposes of payment shall be computed by using the actual length and width of surface to which treatment is applied, in accordance with these Specifications.

C. PAYMENT

The cost of final restoration of the surface shall be paid for at the contract unit price per foot, unless so stated in the Special Provisions or for all State of Illinois projects, for "Bituminous Surface Treatment", of the type specified. Such price shall include the cost of all labor and materials necessary to provide the bituminous treatment as specified.

2-2.05 DISPOSAL OF SURPLUS EXCAVATED MATERIAL

Surplus excavated material not needed for backfill shall be promptly removed from the site to locations provided by the Contractor. The cost of removal and disposal of surplus excavated materials will be included in the respective unit prices for pipeline or conduit construction and no additional payment will be allowed therefor.

2-2.06 CLEANING UP

All surplus materials and all tools and temporary structures shall be removed from the site by the Contractor. All dirt, rubbish and excess earth from the excavation shall be hauled to a dump provided by the Contractor and the construction site left clean and acceptable to the Owner at the earliest possible date.

SECTION 3. FINISHING AND CLEAN UP FOR UNDERGROUND CONDUITS

3-1 CLEAN UP

Before acceptance of underground conduits construction, all pipes, manholes, catch basins, fire hydrants and other appurtenances shall be cleaned of all debris and foreign material.

After all backfill has been completed, the ground surface shall be shaped to conform to the contour of adjacent surfaces. General clean up of the entire construction area shall otherwise conform to applicable requirements specified.

DIVISION II

Technical Specifications

SANITARY SEWER AND FORCE MAIN

SECTION 1. PIPE MATERIAL FOR SEWERS

1-1 DESCRIPTION

Pipe used in sanitary sewer construction, unless otherwise specified, shall be Polyvinyl Chloride Pipe (PVC) or Ductile Iron Pipe (DIP). All sanitary sewer pipe shall have flexible gasketed joints unless otherwise specified.

The Contractor shall only use the sewer pipe material specified on the Plans unless he receives written permission from the Engineer to substitute one of the other materials mentioned herein. No verbal approval, regardless of the source, will be recognized for changing the pipe material, class or type of joint.

1-2 GENERAL

Where reference is made to an ASTM or ANSI designation, it shall be the latest revision at the time of call for Bids, except as noted on the Plans or in the Special Provisions.

CERTIFICATION shall be the responsibility of the pipe manufacturer to certify that pipe and joint material furnished is capable of withstanding the infiltration or exfiltration basis as specified or required, if properly installed.

1-3 MATERIALS

1-3.01 PIPE MATERIALS

The type, class and strength of pipe to be used shall be as shown on the Plans or described in the Special Provisions.

A. DUCTILE IRON PIPE AND FITTINGS

Ductile Iron Pipe shall conform to ANSI A 21.51 (AWWA C-151), Class 52 designed per ANSI A 21.50 (AWWA C-150), tar (seal) coated and/or cement lined per ANSI A 21.4 (AWWA C-104), with mechanical or rubber ring (slip seal or push on) joints. Ductile Iron fittings shall conform to ANSI/AWWA C110 for mechanical, push-on or flanged joints. Cement-mortar and/or tar (seal) coat per ANSI A 21.4 (AWWA 104) and as specified.

B. POLYVINYL CHLORIDE (PVC) PIPE AND FITTINGS

Polyvinyl Chloride pipe (PVC) and fittings shall conform to ASTM F 679 or ASTM D 3034, except that it shall be made of PVC plastic having a minimum cell classification of 12454B.

1-3.02 JOINT MATERIALS

The type of joint materials to be used shall be as shown on the Plans or described in the Special Provisions.

JOINTS FOR SANITARY SEWERS

A. Polyvinyl Chloride (PVC) pipe joints shall conform to ASTM D 2855 for solvent joints or ASTM D 3212 for gasket joints.

B. Ductile iron pipe (DIP) joints shall conform to American National Standard C111/A21.50-90 for Rubber Gasket Joints for Ductile-Iron Pressure Pipe and Fittings.

1-3.03 FITTINGS

Unless otherwise specified, tee fittings shall be provided in the sanitary sewer main for service sewer connections; a log of all tee fitting locations shall be kept by the Contractor during installation and one legible copy of each such log shall be turned over to the Owner prior to completion. Tees shall be six inches (6") inside diameter, unless otherwise specified or noted. All fittings shall be of the same material as the pipe. Material joining the fitting to the pipe shall be free from cracks and shall adhere tightly to each joining surface.

1-3.04 CAP FOR FITTINGS

All fittings shall be capped with a plug of the same material as the pipe, and gasketed with the same gasket material as the pipe joint, or be of material approved by the Engineer. The plug shall be secured to withstand test pressures specified herein.

SECTION 2. PIPE LAYING, JOINTING AND TESTING OF SEWERS

2-1 CONSTRUCTION DETAILS

2-1.01 SEWER PIPE LAYING

Laying of sewer pipe shall be accomplished to line and grade in the trench only after it has been dewatered and the foundation and/or bedding has been prepared in accordance with Division II, Excavation and Cleanup. Mud, silt, gravel and other foreign material shall be kept out of the pipe and off the jointing surfaces.

Variance from established line and grade shall not be greater than one thirty- second of an inch (1/32") per inch of pipe diameter and not to exceed one-half inch (1/2"), provided that any such variation does not result in a level or reverse sloping invert; provided also that variation in the invert elevation between adjoining ends of pipe, due to non-concentricity of joining surface and pipe interior surfaces, does not exceed one sixty-fourth of an inch (1/64") per inch of pipe diameter, or one-half inch (1/2") maximum.

The sewer pipe, unless otherwise approved by the Engineer, shall be laid upgrade from point of connection on the existing sewer or from a designated starting point. The sewer pipe shall be installed with the bell end forward or upgrade, unless approved otherwise. When pipe laying is not in progress, the forward end of the pipe shall be kept tightly closed with an approved temporary plug.

A. SEWER PIPE AND WATER MAIN SEPARATION

Sanitary sewers, house sewers or storm drains that are laid in the vicinity of pipe lines designated to carry potable water shall meet the following conditions as set forth in Division II, Water Distribution, Section 2-2.01.

B. SEWER MANHOLES

Sewer manholes shall be constructed so that no water pipe is in contact with or enclosed by any part of a sewer or sewer manhole. See also Division II, Water Distribution, Section 2-2.01.

2-1.02 DEWATERING

Dewatering sufficient to maintain the water level twelve inches (12") below the surface of the trench bottom or base of the bedding course, shall be accomplished prior to pipe laying and jointing, if not prior to excavation and placing of the bedding as called for in other sections of the Specifications or Special Provisions. The dewatering operation, however accomplished, shall be carried out so that it does not destroy or weaken the strength of the soil under or alongside the trench. The normal water table shall be restored to its natural level in such a manner as to not disturb the pipe and its foundation

2-1.03 BEDDING

The pipe bedding shall be placed so that the entire length of the pipe will have full bearing. No blocking of any kind shall be used to adjust the pipe to grade except when used with concrete encasement.

2-1.04 PLUGS AND CONNECTIONS

Plugs for pipe branches, stubs or other open ends which are not to be immediately connected shall be made of an approved material and shall be secured in place with a joint comparable to the main line joint. Stoppers may be of an integrally cast breakout design.

2-1.05 PIPE MARKINGS

All pipe shall have a homing mark on the spigot provided by the manufacturer.

2-1.06 PIPE JOINTING

Type of joint to be used will conform to the requirements of Section 1-3.02.

All pipe and jointing for sanitary sewers shall be subject to the tests specified in Section 2-1.09.

A. GASKET TYPE JOINTS

All extensions, additions and revisions of a sanitary sewer system, unless otherwise indicated in the Special Provisions, shall be made with sewer pipe jointed by means of a flexible gasket which shall be fabricated and installed in accordance with the specifications that follow. When gaskets are placed on the pipe in the field, the surfaces on which the gasket seats must be thoroughly cleaned. The gasket, lubricated according to the manufacturer's instructions, is placed on the pipe.

Pipe handling after the gasket has been affixed shall be carefully controlled to avoid disturbing the gasket and knocking it out of position or loading it with dirt or other foreign material. Any gaskets so disturbed shall be removed and replaced, cleaned and relubricated if required, before the jointing is attempted.

Care shall be taken to properly align the pipe before joints are entirely forced home. During insertion of the tongue or spigot, the pipe shall be partially supported by hand, sling or crane to minimize unequal lateral pressure on the gasket and to maintain concentricity until the gasket is properly positioned.

Sufficient pressure shall be applied in making the joint to assure that it is home, as described in the installation instructions provided by the pipe manufacturer. Sufficient restraint as specified in Section 2-1.02 shall be applied to the line to assure that joints once home are held so, until fill material under and alongside the pipe has been sufficiently compacted. At the end of the work day, the last pipe laid shall be blocked in an effective way to prevent creep. The pipe shall be closed with a suitable "night cap".

Pipe required to be laid on curved alignment shall be joined in straight alignment and then be deflected, joint by joint. Special care shall be taken in blocking the pipe just previously laid, by tamped fill or otherwise to resist the misaligning forces generated during compression of the joints being made.

B. JOINTING OF DISSIMILAR PIPES

Suitable adaption couplings shall be specified in the Special Provisions for the jointing of dissimilar pipes. Where suitable adaptor couplings are not available for dissimilar pipes the jointing shall be accomplished with a special fabricated coupling to concrete encasement as specified, or as submitted by the Contractor and approved by the Engineer.

2-1.07 SEWER LINE CONNECTIONS

Sewer line connections to trunks, mains, laterals, or side sewers shall be left uncovered until after an acceptance observation has been made. After approval of the connection, the trench shall be backfilled as specified in Division II, Excavation and Cleanup, Section 1-2.20 after first covering the bare pipe with select material compacted to a depth of six inches (6") above the crown of the pipe.

No existing sewer shall be connected to a sanitary sewer unless specifically authorized in each instance by the Engineer. Storm drains and drain tiles shall not be connected to a sanitary sewer.

2-1.08 SERVICE RISERS

Where the depth of the sewer invert is greater than twelve feet (12') below the surface of the ground, a service riser shall be constructed to an elevation of ten feet (10') below the ground elevation or as directed by the Engineer.

The service riser shall be constructed with the six-inch (6") tee as shown on the Plans placed to receive the six-inch (6") riser pipe. The tee shall be bedded as shown on Plans.

The riser pipe shall extend to the proper elevations and shall terminate with a manufactured plug.

Extreme care shall be taken in backfilling around risers. Where the excavated material is not suitable for this purpose in the opinion of the Engineer, granular material shall be placed around the riser.

2-1.09 TESTING AND INSPECTION FOR ACCEPTANCE OF SANITARY SEWER

Testing and inspection of sanitary sewers for acceptability shall be conducted by:

A. Exfiltration of water
B. Infiltration of water
C. Exfiltration of air under pressure
D. Lamping
E. Televising (Optional procedure to supplement items A. through E.)

At a minimum, all sanitary sewers shall be tested for acceptability by either A., B., or C. above or a combination thereof. All lines shall be cleaned of debris and flushed clean as necessary. Debris shall not be flushed into sanitary sewer.

A. SELECTION OF TEST SECTIONS

Unless otherwise specified or directed by the Engineer, the first section of sanitary sewer constructed of approximately 1,200 feet in length or the entire length of sewer if it is less than 1,200 feet shall be tested by the exfiltration, infiltration, or air testing method before additional excavation is permitted.

The Contractor may at his option divide the first section of sewer into subsections of more convenient length for testing. If the section or subsection tested does not pass the tests, it shall be repaired and the test repeated until a satisfactory test is obtained. Excavation shall not proceed beyond the first 1,200 foot section until test results for the entire 1200 feet are satisfactory.

In the event the first 1,200 foot section of sewer or portion thereof did not pass the test on the first trial, the next section of sanitary sewer of approximately 1,200 feet in length shall also be tested, repaired if necessary, and retested until a satisfactory test is obtained before additional excavation is started.

When favorable test results are obtained on the first trail on a full 1,200 foot section of pipe, the Engineer may designate additional sections for testing as conditions in his opinion warrant. The Engineer reserves the right to select the location and lengths of additional test sections when construction operations or materials change or where construction difficulties indicate leakage or deflection may be present or in sections selected at random.

The Engineer shall notify the Contractor of the location where a test is to be required no later than 15 days after the sewer installation has been completed in the section to be tested. Unless otherwise authorized, the Contractor shall arrange to commence the test within 15 days after the sewer has been installed or 15 days after notification by the Engineer, whichever date is later.

B. TESTING TECHNIQUE

All Testing Methods: All wyes, tees and stubs shall be plugged with flexible jointed caps, or acceptable alternate, securely fastened to withstand the internal test pressure. Such plugs or caps shall be readily removable.

1. Exfiltration Method Procedures: The section of sewer to be tested shall be sealed by inserting inflatable rubber bags in the pipes or by other means approved by the Engineer, and then water shall be introduced into a manhole until the section is completely filled. The Contractor shall fill the pipe to the test level prior to the time of exfiltration testing to permit normal absorption into the pipe walls.

   Throughout the test period of at least one (1) hours, the water level in the upper manhole shall be maintained at least twenty-four inches (24") above the

crown of the upper end of the pipe or at least twenty-four inches (24") above the ground water table, whichever is higher. The length of pipe tested shall be limited so that the pressure on the center line of the lower end of the section tested shall not exceed six feet (6') of water column.

2. Infiltration Method Procedures: The section of sewer to be tested shall have been trench backfilled and the tests conducted by inducing infiltration conditions by jetting the sewer trench for a sufficient length of time to insure that the water level in the trench is a minimum of twenty-four inches (24") over the crown of the sewer pipe at the upper end of the pipe. The test must be performed before existing sewers are connected and before sewage flow is allowed in the sewers.

3. Air Testing Method Procedures: The section of sewer to be tested shall have been trench backfilled and cleared. Pneumatic plugs (having a sealing length equal to or greater than the diameter of the pipe to be tested) placed in both ends of the pipe to be tested shall be inflated to 25 psig. The sealed sewer pipe shall then be pressurized to 4 psig above the average back pressure of ground water over the sewer pipe and the air pressure allowed to stabilize for at least two minutes.

   After the stabilization period the line shall be pressurized to 3.5 psig and the time in minutes measured for pressure to drop to 2.5 psig. If groundwater is present, the air pressure within shall be increased to 3.5 psig above the level of the ground water and the drop of one pound of air pressure measured in minutes.

   Air testing techniques shall be in accordance with the latest ASTM standard practice for testing sewer lines by low-pressure air test method for the appropriate pipe material, except that the time shall not be less than that shown in the Air Test Table contained in Section 2-1.11C.

4. Testing Procedures for PVC pipe shall include the following;

   All sanitary sewers and manholes shall be tested by low pressure air testing and deflection testing. Deflection test shall not occur within less than thirty (30) days of completion of the section of sewer being tested including backfilling to finished grade.

   A five percent (5%) Mandrel Deflection Test shall be performed on all PVC gravity sanitary sewer pipe. These pipes shall be mandrelled with a rigid device sized to pass five percent (5%) or less deflection (or deformation) of the base inside diameter of the sewer pipe.

Laser Profiling of the installed pipe to measure pipe deflection is acceptable in lieu of mandrell testing. The laser profiler shall be a ''Scanner 3-D'' type, which permits the measuring of actual deformities with a precision of at least 0.25%. The measurement of the actual pipe deformity must be calculated with the actual interior diameter on all points of the pipe (not the nominal diameter). The laser profiler must be able to give a series of at least a 1000 diametrical measurements at any given measuring point in a pipe. The laser profiling and observation measuring equipment must be certified on an annual basis by a qualified and accredited third party laboratory.

After the placement base material or compacted soils, a video recording of the interior of the installed pipe will be properly documented utilizing equipment indicated in this specification. Provide a video and report.

The contractor will dewater, clean, and bypass (if necessary) the installed pipe and provide the Engineer with a video and report using low barrel distortion video equipment with laser profile technology, non-contact laser aim video micrometer, and associated software.

For video recorded, laser profiled pipe that indicates deflection that is in excess of that allowed in the specification, the engineer may require the removal, replacement, repair, and/ or retesting of the pipe that has failed to meet the specific deflection requirements for the type of pipe installed, at no cost to the Owner.

For video recorded, observation and/or defect measured pipe that indicates that it exceeds that allowed in the specification, the engineer may require the removal, replacement, repair, and/ or retesting of the pipe that has failed to meet the specific observation and/or defect specification for that type of pipe installed, at no cost to the Owner.

Provide high quality video recording of the CCTV inspection in a high definition format video with a standard resolution of 720x 480. Utilize a camera with lighting suitable to allow a clear picture of the entire periphery of the pipe. Center the camera in the pipe both vertically and horizontally and be able to pan and tilt to a 90 degree angle with the axis of the pipe and rotating 360 degrees. Use equipment suitable to be able to move the camera through the pipe that will not obstruct the camera's view or interfere with proper documentation of the pipe's condition.

The video image shall be clear, focused, and relatively free from roll, static, or other image distortion qualities that would prevent the reviewer from evaluating the condition of the pipe. The video will include identification, at a minimum, before each line section of pipe to be filmed, the project number, the

structure number corresponding to the structure number on the set of plans for the project, size of pipe, the date and time, and indicate which pipe is being filmed if multiple pipes are connected to the structure. Written or typed television inspection logs shall be taken during the video recording process. Provide the engineer with copies of these "logs" along with the video.

Move the camera and Laser profiler through the pipe at a speed no greater than 30 feet per minute. Mark the video with the distance down the pipe. The distance meter shall have an accuracy of one foot per hundred feet (300mm in 328 meters). Stop the camera and pan when necessary to properly document observations and defects. Film the entire circumference at each joint. The operator must measure each joint, defect and crack discovered during the videotaping process surpassing the permitted values of the present specification.

A report of field conditions utilizing the laser profiler must, at a minimum, contain the following:

a. graphic indicating the actual deformity registered in real-time for each section of the pipe (every 10mm);

b. The description and a picture of the pipe and of the laser ring for each deformity surpassing the permitted values by the present standard;

c. A copy of the calibration certificate from an accredited third party laboratory specifying the technology used, the device used and the certificate's validity date for this device;

d. A recorded (video and written) measurement of crack lengths and width surpassing the permitted values of the present specification;

e. A recorded (video and written) measurement of all pipe joints surpassing the permitted values of the present specification;

f. Documentation of all pipe deformities, actual pipe measurements, leaks, debris and any other damage or defects;

g. Deviation in pipe line and grade, joint gaps, and joint misalignment;

h. Indexed and interactive display software for graphics (profile and isometric views), as well as two separate windows showing the video inspection and the laser profiler video inspection simultaneously.

5. Lamping shall be performed on all sewer pipeline by the Engineer.

C. ALLOWABLE TESTING LIMITS FOR SANITARY SEWERS

1. Exfiltration leakage shall not exceed 200 gallons per inch of pipe diameter per mile per day of sewer pipe, including manholes in the test section.
2. Infiltration flow shall be measured by a 90-degree V-notch weir with free fall discharge or other means acceptable to the Engineer. Infiltration leakage shall not exceed 200 gallons per inch of pipe diameter per mile per day of sewer pipe, including manholes in the test section.
3. Air leakage test results shall not be less than the time per inch of pipe diameter per length of sewer pipe as specified in the table entitled "Air Test Table".
4. Three-fourths (3/4) of the pipe circle shall be observed both vertically and horizontally for lamping.

AIR TEST TABLE

SPECIFICATION TIME (min:sec) REQUIRED FOR PRESSURE DROP FROM 3-1/2 TO 2-1/2 PSIG WHEN TESTING ONE PIPE DIAMETER ONLY

PIPE DIAMETER, INCHES

Length of Sewer Pipe In Feet	4	6	8	10	12	15	18	21	24
25	0:04	0:10	0:18	0:28	0:40	1:02	1:29	2:01	2:38
50	0:09	0:20	0:35	0:55	1:19	2:04	2:58	4:03	5:17
75	0:13	0:30	0:53	1:23	1:59	3:06	4:27	6:04	7:55
100	0:18	0:40	1:10	1:50	2:38	4:08	5:56	8:05	10:34
125	0:22	0:50	1:28	2:18	3:18	5:09	7:26	9:55	11:20
150	0:26	0:59	1:46	2:45	3:58	6:11	8:30		
175	0:31	1:09	2:03	3:13	4:37	7:05			
200	0:35	1:19	2:21	3:40	5:17				12:06
225	0:40	1:29	2:38	4:08	5:40			10:25	13:36
250	0:44	1:39	2:56	4:35			8:31	11:35	15:07
275	0:48	1:49	3:14	4:43			9:21	12:44	16:38
300	0:53	1:59	3:31				10:12	13:53	18:09
350	1:02	2:19	3:47			8:16	11:54	16:12	21:10
400	1:10	2:38			6:03	9:27	13:36	18:31	24:12
450	1:19	2:50			6:48	10:38	15:19	20:50	27:13
500	1:28			5:14	7:34	11:49	17:01	23:09	30:14

D. PAYMENT FOR TESTS

Payment for tests will not be paid for separately, but shall be included in the unit price of pipe, per foot. If any section fails to meet the test, it shall be repaired at the Contractor's expense and retested until it meets the leakage limitation.

2-2 MEASUREMENT

For payment purposes, the length of sewers installed shall be measured along the centerline. No deductions in length will be made for tees or fittings.

2-3 PAYMENT

Payment for pipe sewers shall be made at the contract unit price of the size and type indicated on the bid item at the contract unit price per foot for the size and type indicated. The cost of all items of construction not specifically listed for separate payment shall be included as an incidental expense in the contract price. No more than ninety percent (90%) of the value of work included in the unit price shall be eligible for inclusion in a partial payment estimate until leakage tests have been performed as specified and the pipes and joints are found to be satisfactory.

2-4 MEASUREMENT AND PAYMENT

The cost of all items described under "Pipe Laying, Jointing and Testing" not shown as bid items on the Proposal shall not be measured or paid for by item, but shall be included as part of the respective unit bid prices per foot for conduit construction of the size and type specified.

SECTION 3. MANHOLES FOR SANITARY SEWERS

3-1 DESCRIPTION

Manholes shall be leak-tight and shall be constructed of pre-cast concrete units, or cast-in-place concrete only, all in compliance with Plans and these Specifications.

3-2 MATERIALS

3-2.01 REINFORCED CONCRETE

Reinforced concrete shall consist of Portland Cement, mineral aggregates and water, in which steel has been embedded in such manner that the steel and concrete set together.

A. CEMENT

Cement shall conform to the requirements of the Specifications for Portland Cement ASTM C 150, and may be either standard Portland Cement or air-entrained Portland Cement of any type unless otherwise specified in the Special Provisions.

B. WIRE FABRIC REINFORCEMENT

Reinforcement shall consist of wire conforming to ASTM A185 or A497. Also, smooth wire conforming to ASTM A8Z and deformed wire conforming to ASTM A496.

C. BAR REINFORCEMENT

Bar reinforcement shall conform to ASTM A615, grade 40.

D. AGGREGATES

Aggregates shall conform to ASTM C33, except that the requirements for gradation shall not apply to precast items.

E. MIXTURES

The aggregates shall be so sized and graded, and proportioned and thoroughly mixed in proportions of cement and water as will produce a homogeneous concrete mixture of such quality that the manhole components will conform to the strength and watertightness requirements of these specifications.

F. CURING

Cast-in-place manhole components shall be moist-cured for a period not less than seven (7) days except that when high-early-strength cement is used, the curing shall be not less than three (3) days. Pigmented membrane curing compound or other approved method may be applied in lieu of moist curing.

G. STRENGTH

All concrete placed under these specifications shall have a minimum compressive strength of thirty-five hundred (3,500) psi at twenty-eight (28) days. Strength

determination shall be in accordance with ASTM C-39, unless otherwise approved by the Engineer.

3-2.02 STEPS

Manhole steps shall be cast iron ASTM A48 furnished and installed as shown on the Plans with load and pullout ratings meeting OSHA standards.

3-2.03 CAST IRON FRAMES AND COVERS

Castings shall conform to the requirements of gray iron castings ASTM A48 and conform to the details shown on the Plans. They shall be adjusted to final grade with precast concrete rings and mortar.

3-2.04 PRECAST MANHOLE COMPONENTS

Precast manholes shall conform with ASTM C-478 and with design dimensions. Cones and sections shall be substantially free from fractures, large or deep cracks and surface roughness. Slabs shall be sound and free from gravel pockets.

3-2.05 ADJUSTING RINGS

Final adjustment of frames and grates to grade shall be accomplished through the use of precast concrete adjusting rings. The rings shall be designed to provide a structural capacity equal to the cones and sections. They shall have a device for positively positioning and securely fastening the ring to the frame so as to match the surface grade and slope and prevent movement when under traffic loadings.

3-2.06 MONOLITHIC CONCRETE MANHOLES

Monolithic concrete manholes shall conform to detailed shop drawings submitted to the Engineer for approval prior to beginning Work and shall conform to the dimensional requirements specified. Walls and base shall be six inches (6") minimum thickness and space of steps shall be sixteen inches (16").

3-3 CONSTRUCTION DETAILS

3-3.01 FOUNDATION PREPARATION

A. DEWATERING

Dewatering of the site shall conform to the requirements for sewer trench de-watering in Section 2-1.02.

B. SUB-BASE PREPARATION

Adequate foundation for all manhole structures shall be obtained by removal and replacement of unsuitable material with well graded granular material; or by tightening with coarse ballast rock, or by such other means as provided for foundation preparation of the connected sewers, or as shown on the Plans.

3-3.02 BEDDING

Precast base sections shall be placed on a well graded granular bedding course conforming to the requirements for sewer bedding in Section 2, but not less than six inches (6") in thickness and extending

to the limits of the excavation. The bedding course shall be firmly tamped and made smooth and level to assure uniform contact and support of the precast element.

3-3.03 CAST-IN-PLACE BASES

Unless otherwise specified, cast-in-place bases shall be at least eight inches (8") in thickness and shall extend at least six inches (6") radially outside of the outside diameter of the manhole section.

3-3.04 PRECAST MANHOLES

Precast manholes may be constructed with a precast base section or a monolithic base structure as specified or shown on the Plans.

A precast base section shall be carefully placed on the prepared bedding so as to be fully and uniformly supported in true alignment and making sure that all entering pipes can be inserted on proper grade.

All lift holes on precast elements for sanitary sewer manholes shall be completely filled with a concrete plug and sealed with an approved bitumastic material. All joints between precast elements on sanitary sewer manholes shall be made with an approved bitumastic material or an approved rubber gasket.

The first precast section shall be placed on the monolithic base structure before the base has taken initial set, and shall be carefully adjusted to true grade and alignment with all inlet pipes properly installed so as to form an integral watertight unit; or the section shall be mortared into a suitable groove provided in the top of the monolithic base. The first section shall be uniformly supported by the base concrete, and shall not bear directly on any of the pipes.

Precast sections shall be placed and aligned to provide vertical sides and vertical alignment of the ladder rungs. The completed manhole shall be rigid, true to dimensions, and be watertight.

3-3.05 MONOLITHIC CONCRETE MANHOLES

Monolithic concrete manholes shall be constructed in accordance with the provisions of this Section and the details shown on the Plans.

3-3.06 EXCAVATION AND BACKFILLING

In order to permit the joints to be mortared properly and also to permit proper compaction of the backfill material, the excavation shall be made to a diameter of at least six inches (6") greater than the diameter of the structure.

The space between the sides of the excavation and the outer surfaces of the manhole, shall be backfilled with selected granular backfill if the manhole is in a pavement or if the nearest point of the excavation for the manhole falls within 2 feet of the pavement edge. If the structure falls beyond these limits, other backfilling material may be used, provided it meets with the approval of the Engineer.

3-3.07 INLET AND OUTLET PIPES

Pipe or tile placed in the masonry for inlet or outlet connections shall extend through the wall and beyond the outside surface of the wall a sufficient distance to allow for connections, and the masonry shall be carefully constructed around them so as to prevent leakage along the outer surfaces.

3-3.08 PLACING CASTINGS

Casting placed on concrete or masonry surface shall be set in full bituminous mastic beds. Castings shall be set accurately to the finished elevation so that no subsequent adjustment will be necessary.

A. STREETS AT GRADE

Where Work is in paved streets or areas which have been brought to grade, not more than sixteen inches (16") shall be provided between the top of the cone or slab and the underside of the manhole casting ring for adjustment of the casting ring to street grade.

B. STREETS OR ALLEYS WITH NO ESTABLISHED GRADE

Where Work is in the streets or other areas which have not been brought to grade, not less than four inches (4") nor more than sixteen inches (16") shall be provided between the top of the cone or slab and the underside of the manhole casting ring for adjustment of the casting ring to street grade.

The top of the manhole casting shall be flush with the street surface unless otherwise directed by the Engineer.

C. MANHOLES NOT WITHIN STREET OR ALLEY AREAS

Where Work is in cultivated areas, the top of the casting, unless otherwise directed by the Engineer, shall be eighteen inches (18") below the established ground surface.

Unless otherwise directed, in non-cultivated areas, the top of manhole castings shall be at grade of existing surface.

D. SEALING MANHOLES

Sanitary sewer manholes which are covered with earth or are located in low areas than can collect rainwater, and any other manholes indicated on the Plans, to be sealed, shall be equipped with an approved self-sealing lid.

3-3.09 CHANNELS

Channels shall be made to conform accurately to the sewer grade and shall be brought together smoothly with well rounded junctions, satisfactory to the Engineer, and in conformance with details shown on the Plans.

3-3.10 PIPE CONNECTIONS

Special care shall be taken to see that the openings through which pipes enter the structure shall be provided with flexible watertight connections conforming with ASTM C 923, "Standard Specifications For Resilient Connectors Between Reinforced Concrete Manhole Structures And Pipes." Other methods may be used to ensure watertightness when specified in the Special Provisions.

3-3.11 DROP MANHOLE CONNECTIONS

Drop manhole connections, whenever shown on the Plans, shall conform in all respects to details shown on the Plans.

3-3.12 CLEANING

All newly constructed manholes shall be cleaned of any accumulation of silt, debris, or foreign matter of any kind, and shall be free from such accumulations at the time of final inspection.

3-4 PAYMENT

Payment for each Manhole shall consist of a basic price for each.

3-5 MEASUREMENT AND PAYMENT

The following items under "Manholes for Sanitary Sewers" are specifically listed for separate measurement and payment:

"Manholes" of the type and size indicated.

"Drop Manholes" of the type and size indicated.

SECTION 4. SERVICE SEWERS

4-1 DESCRIPTION

A service sewer is a branch sanitary sewer line constructed from the main sanitary sewer line to a point described on the Plans or to a point established by the Engineer.

The general requirements for construction of sewers in other sections of these Specifications shall apply for service sewers unless they are inconsistent with any of the provisions of this particular section, and the Specifications shall apply alike to all service sewers on public rights of way and private property.

Unless otherwise specified, service sewers and fittings shall be six inches (6") in diameter.

4-2 MATERIALS

4-2.01 PIPE AND FITTINGS

Approved pipe and fitting materials shall be ductile iron, PVC, or vitrified clay. All other materials shall conform to the material requirements for sanitary sewer construction in other sections of the Specifications.

4-2.02 JOINTS

Approved jointing material shall be flexible gasketing. Flexible gasketing shall be construed to include rubber, synthetic rubberlike and plastic materials specially manufactured for the joint, pipe size, and use intended and shall be furnished by the manufacturer of the pipe to be used. Physical properties of the flexible gasketing shall conform to that defined in Section 1.

4-3 CONSTRUCTION DETAILS

4-3.01 GENERAL

Service sewer construction shall conform to all applicable ordinances or regulations unless otherwise stated in the Special Provisions. The Owner will obtain any necessary permits for service sewer construction.

4-3.02 EXCAVATION AND BACKFILL

Excavation and backfilling for service sewers shall conform to the requirements of other sewers, excepting that no backfill in excess of that required to hold the pipe in true alignment shall be placed prior to inspection.

4-3.03 PIPE LAYING AND JOINTING

Pipe laying and jointing, except as hereinafter provided, shall in general conform to the requirements of Section 2. During the pipe laying and jointing, the service sewer shall be kept free of any water, dirt or objectionable matter.

A watertight, factory-made plug shall be installed at the end of each sewer service.

A. LINE AND GRADE

Pipe shall be laid with a minimum grade of one-eighth inch (1/8") per lineal foot unless otherwise ordered. The Contractor shall establish such alignment and grade control as is necessary to properly install the service sewer.

B. PIPE LAYING

Pipe shall be laid in a straight line at a uniform grade between fittings, or on a uniform horizontal or vertical curvature achieved by deflecting pipe joints within the limits recommended by the manufacturer of the pipe used.

4-3.04 FITTINGS

All fittings shall be factory-produced and shall be designed for installation on the pipe to be used. Fittings shall be of the same quality and material as the pipe used.

The maximum deflection permissible at any one (1) fitting shall not exceed 45 degrees (one-eighth (1/8) bend). The maximum deflection of any combination of two adjacent fittings shall not exceed 45 degrees (one-eighth (1/8) bend) unless straight pipe of not less than two and one-half feet (2-1/2') in length be installed between such adjacent fittings, or unless one of such fittings be a wye branch with a cleanout provided on the straight leg.

Service sewers shall be connected to the tee, wye, or riser provided in the public sewer where such is available, utilizing approved fittings or adaptors. Where no tee, wye, or other riser is provided or available, connection shall be made by machine made tap and suitable saddle, or other methods as specified in the Special Provisions.

4-3.05 CLEANOUTS

Cleanouts shall be provided at locations and in accordance with details shown on the Plans.

4-3.06 RESTORATION, FINISHING AND CLEANUP

The Contractor shall restore all paved surfaces, curbing, sidewalks, or other surfaces to their original condition in such manner as to meet the requirements of applicable sections. All surplus material and temporary structures, as well as all excess excavation, shall be removed and the entire site of Contractor operations shall be left in a neat and clean condition.

4-4 MEASUREMENT

Measurement shall be along the pipe from the outside surface of the main sewer to the extreme end of the last pipe or fitting placed. Measurement shall be to the nearest one foot (1').

4-5 PAYMENT

Payment or service sewers shall be at the unit contract price per foot or each for "Service Sewers" of the size indicated. Tees, wyes, bends, adaptors, and plugs shall be considered as incidental to the construction.

All other costs shall be considered as incidentals to the construction of the service sewer and shall be included in the unit Contract prices for "Service Sewers".

4-6 MEASUREMENT AND PAYMENT

The cost of all items described under "Service Sewers" shall not be measured or paid for by item, but shall be included as part of the respective unit bid prices for conduit construction of the size specified.

SECTION 5. PIPE COVERING AND EMBANKMENT FOR SEWER CONSTRUCTION

5-1 DESCRIPTION

This section of the Specification applies to the construction of pipe covering and embankment. Pipe covering shall be constructed where the invert of the pipe is so shallow that placing of earth over the pipe becomes necessary to provide a minimum depth of cover. Pipe cover and embankment shall be constructed where the invert of the pipe is above the existing ground and it becomes necessary to construct an embankment upon which the pipe and pipe covering is to be placed. The embankment and cover shall be constructed to lines shown on the Plans.

5-2 CONSTRUCTION DETAILS

5-2.01 PIPE BED

The area upon which the embankment for the pipe bed is to be placed shall be stripped to the extent the Engineer directs to provide a firm bedding.

The embankment upon which the pipe is to be installed shall be constructed up to the spring line in six inch (6") lifts, each lift being compacted to a density equal to ninety-five percent (95%) of ASSHTO T 99 density. The material used in constructing the embankment shall be such that it will readily compact to required density. The Contractor may use any type of compacting equipment he wishes provided the required end result is obtained, and provided no damage occurs to surface or subsurface improvements.

5-2.02 PIPE COVER

The pipe cover material above the compacted embankment shall be placed without compacting, and shall be shaped to the required section.

5-2.03 SOURCE OF MATERIAL

The source of material shall be that which is specified in the Special Provisions.

5-3 MEASUREMENT

Measurement will be by the cubic yard of embankment as calculated from cross sections based on elevations of the ground surface after stripping and the neat line of the section conforming to the drawing. No deduction will be made for pipe volume displacement.

5-4 PAYMENT

Payment will be made at the unit Contract price per cubic yard for Pipe Covering and Embankment, which price shall be full compensation for furnishing all labor, equipment, and materials necessary to strip, construct and compact the embankment and cover as specified to the satisfaction of the Engineer.

SECTION 6. FORCE MAIN MATERIAL AND INSTALLATION

6-1 DESCRIPTION

Pipe used in force main construction, unless otherwise specified, shall be Polyvinyl Chloride Pipe (PVC) or Ductile Iron Pipe (DIP). All force main shall have flexible gasketed joints unless otherwise specified.

The Contractor shall only use the force main pipe material specified on the Plans unless he receives written permission from the Engineer to substitute one of the other materials mentioned herein. No verbal approval, regardless of the source, will be recognized for changing the pipe material, class or type of joint.

6-2 GENERAL

Where reference is made to an ASTM or ANSI designation, it shall be the latest revision at the time of call for Bids, except as noted on the Plans or in the Special Provisions.

6-3 CERTIFICATION

It shall be the responsibility of the pipe manufacturer to certify that pipe and joint material furnished is capable of withstanding the pressure rating as specified or required, if properly installed.

6-4 MATERIALS

A. DUCTILE IRON FORCE MAIN AND FITTINGS

Ductile Iron Pipe (DIP) force main shall conform to ANSI A21.51 (AWWA C151), designed per ANSI A21.50 (AWWA C150), and shall comply with the American National Standard C104/A21.4-95 for Cement-Mortar Lining for Ductile-Iron Pipe and Fittings for Water. Flanged fittings shall be Class 53 that meet the requirements of AWWA C110/A21.10. Flanged joints shall meet the requirements of AWWA C115/A21.15 with full-face gaskets for joints on 12-inch diameter and smaller pipe and ring type gaskets for larger pipe. Mechanical joint fittings shall meet the requirements of AWWA C153/A21.53. Mechanical joints shall comply with American National Standard C111/A21.50-90 for Rubber Gasket Joints for Ductile-Iron Pressure Pipe and Fittings. All underground DIP force main shall be Class 52 wrapped in 8-mil thick polyethylene encasement in accordance with ANSI/AWWA C105/A21.5, Method B, with pipe and joints wrapped separately. For ductile iron pipe and fittings with mechanical joints that require harnessing, provide ductile iron mechanical joint retainer glands that are designed to resist pullout of the joints at the test pressures specified. Provide stainless steel bolts and nuts meeting the requirements of ASTM A 307, Grade B. Where required provide wall castings and connecting pieces meeting the requirements of AWWA C110/A21.10.

Installation of DIP shall be governed by AWWA Standard C600-93, AWWA Standard for Installation of Ductile-Iron Water Mains and Their Appurtenances. Bedding shall be in

accordance with ASTM C 12. All piping shall be installed and tested in accordance with AWWA standard C600-93, AWWA Standard for Installation of Ductile-Iron Water Mains and Their Appurtenances.

DIP force main shall utilize mechanical joint fittings for force restraint. The mechanical joint restraint devices shall be:

1. EBAA Iron, Inc., MegaLug 1100 series
2. Uni-Flange Series 1400, One-Lok Series SLD
3. Engineer-approved equal

Measurement shall be made along the centerline of force main installed. The contract unit price bid for DIP force main construction shall include the cost for piping, joint-restraint devices, polyethylene encasement, excavation, trench dewatering and maintenance, trench bottom reshaping, bedding, haunching, compaction, testing, and all other work necessary for a complete job. This work will be paid for at the contract unit price bid of LINEAL FOOT for DUCTILE IRON FORCE MAIN at the diameter specified. Fittings in the force main will be paid for at the contract unit price bid per POUND for DUCTILE IRON FITTINGS at the diameter specified.

B. POLYVINYL CHLORIDE (PVC) FORCE MAIN AND FITTINGS

Polyvinyl Chloride (PVC) force main and fittings shall be Pressure Class 200, DR 14 conforming to AWWA C900 (AWWA Standard for Polyvinyl Chloride [PVC] Pressure Pipe and Fabricated Fittings, 4 in. Through 12 in. [100 mm Through 300 mm], for Water Distribution) with fittings and elastomeric gasketed joints meeting the requirements of AWWA C907 (Injection-Molded Polyvinyl Chloride [PVC] Pressure Fittings, 4 in. Through 12 in. [100 mm Through 300 mm], for Water Distribution), unless otherwise directed by the Engineer.

All PVC piping shall be installed and tested in accordance with AWWA C605 (Underground Installation of Polyvinyl Chloride (PVC) Pressure Pipe and Fittings for Water).

PVC force main shall utilize mechanical joint fittings for force restraint. The mechanical joint restraint devices shall be:

1. EBAA Iron, Inc., MegaLug 1100 series
2. Uni-Flange Series 1400, One-Lok Series SLD
3. Engineer-approved equal

Each PVC pipe length and fitting shall be clearly marked with the following:

1. Manufacturer's Name
2. Nominal Pipe Size
3. Cell Classification
4. Minimum Pipe Stiffness

The Contractor shall take great care not to scratch, indent, puncture or otherwise damage the PVC pipe during installation. All pipe materials used shall be inspected and approved by the Engineer before and during installation. If a pipe section has been damaged in any way before or during installation, it shall be removed and replaced with a pipe section acceptable to the Engineer. Pipe installation shall strictly conform to the manufacturer's recommendations.

A detectable metallic tracing and warning tape of a type approved by the Engineer shall also be installed. This work shall consist of burying of metallic tape in the trench running along the centerline of the force main. The tape shall be laid in the trench 2 feet above the buried force main. The tape shall be 2" wide and read "CAUTION – BURIED FORCE MAIN BELOW."

Measurement shall be made along the centerline of force main installed. The contract unit price bid for PVC force main construction shall include the cost for piping, joint-restraint devices, magnetic pipe location tape, excavation, trench dewatering and maintenance, trench bottom reshaping, bedding, haunching, compaction, testing, and all other work necessary for a complete job. This work will be paid for at the contract unit price bid of LINEAL FOOT for PVC FORCE MAIN at the diameter specified. Fittings in the force main will be paid for at the contract unit price bid per POUND for PVC FITTINGS at the diameter specified.

6-5 CONNECTION TO EXISTING SANITARY SEWER MANHOLE

This work involves connection of the force main to an existing sanitary manhole at the location shown on the plans, or as directed by the Engineer. The contractor will have to provide sheeting, scaffolding or bracing to insure that no movement of the exposed manhole will take place while core drilling the exposed wall to allow the pipe installation. Should the structure be found to deflect, displace or fall out of plumb, the contractor shall be responsible for correcting the movement.

In the process of core drilling the wall, extreme care shall be taken so that minimal structural damage is done to the manhole. All debris falling into the manhole must be entirely removed. Connections to existing manholes shall be made using an A-Lok gasket, rubber boot, or other approved flexible seal.

The cost for all equipment, labor and materials, including core drilling the manhole wall opening, excavation, furnishing, erecting, and removing shoring, scaffolding and/or bracing, water stop, and backfilling will be paid for at the contract unit price per EACH for CONNECTION TO EXISTING SANITARY SEWER MANHOLE.

6-6 STEEL SLEEVES-AUGERED

The Contractor is advised to review the site and familiarize himself with the soil conditions prior to finalizing his bid for this portion of the work. No additional compensation shall be allowed for changes in the construction method due to ground conditions that may exist at the time of construction. All work shall be performed in accordance with Section 552 of the Standard Specification except as described in the following specifications and the Steel Sleeve Specification contained herein.

This work shall consist of auguring a steel sleeve at the location and at the line and grades provided on the plans or as where directed by the Engineer. The Contractor shall field verify the elevations and locations of any and all utilities that may cross beneath or over the proposed auger prior to ordering structures, or beginning the auger operation so as to not damage the existing utilities during auger operations. No additional compensation shall be given for any modifications required to be made to the proposed force main design (including but not limited to re-ordering/restocking structures), or for any delay time incurred due to a difference in assumed and actual elevations of the existing utilities.

The Contractor shall take all necessary precautions to prevent the undermining of roadways, structures, embankments, or property including the utilization of trench boxes, sheeting, etc., to properly maintain the auger and receiving pit excavations such that underlying soils between the pavement edge etc. and auger limits are prevented from entering the excavation. In the event that settlement or any other damage occurs to adjacent roadways, property or structures between the time the auguring is completed and the end of the contract bond guaranty period, the Contractor shall be fully responsible for any repairs deemed necessary by the Engineer.

This work shall consist of the construction of steel sleeves (casing pipe) augured at the locations indicated in the contract drawings or as directed by the Engineer. The minimum thickness of the steel sleeves shall be as listed below. All casing pipe shall be smooth, Grade B welded steel pipe meeting the requirements of ASTM A139 and ANSI/ AWWA C200 (AWWA Standard for Steel Water Pipe—6 in. (150 mm) and Larger), minimum yield strength of 35,000 psi. Sleeves shall be installed as indicated in the detail drawings, unless otherwise approved by the Engineer.

After installation of the steel sleeve is completed, the proposed force main shall be constructed in place within the sleeve. The water main shall be inserted and centered by use of model CCS stainless steel casing spacers as manufactured by Cascade Waterworks Mfg. Co. of Yorkville, IL or Engineer-approved equal.

Caser spacing shall be bolt on style with a two-piece shell made from T-304 stainless steel of a minimum 14-gauge thickness. Each shell section shall have bolt flanges formed with ribs for added strength. Each connecting flange shall have a minimum of three (3) five-sixteenths inch (5/16") T-304 bolts. The shell shall be lined with a ribbed PVC extrusion with a retaining section that overlaps the edge of the shell and prevents slippage. Bearing surfaces (runners) made from UHMW polymer with a static coefficient of friction of 0.11-0.13 shall be attached to support structures (risers) at appropriate positions to properly support the carrier within the casing and to ease installation. The runners shall be attached mechanically by T-304 threaded fasteners inserted through the punched riser section and TIG welded

for strength. Risers shall be made of T-304 14-gauge stainless steel. All risers over two inches (2") in height shall be reinforced. Risers shall be MIG welded to the shell. All metal surfaces shall be fully passivated.

The cost for excavating, shoring, trench backfill, and backfilling of the jacking pit and receiving pit, including dewatering (if necessary), stabilization, and installing the steel sleeve shall be considered incidental to the contract unit price for the steel sleeve auger.

Standard Sizes of Steel Sleeves Used As Casings*

Carrier Pipe ID in Inches	Casing Wall Thickness in Inches	Casing Outside Diameter in Inches
6	0.344	20
8	0.344	20
12	0.375	24
16	0.469	30
20	0.563	36
24	0.625	42
30	0.719	48
36	0.781	54
42	0.875, 0.938	60, 66
48	1.000	72

*Adapted from City of Chicago, IL Water Department Standard Specifications

The cost of furnishing and installation of the steel sleeve, and all incidental work necessary for its installation, including casing spacers, will be paid for at the contract unit price bid per LINEAL FOOT for [SPECIFIED SIZE] DIAMETER STEEL SLEEVE, [SPECIFIED SIZE] WALL THICKNESS, AUGERED. The cost for force main constructed within the sleeves will be paid for at its unit price.

6-7 STEEL SLEEVES-OPEN CUT INSTALLATION

The work for open cut installation of steel sleeves shall be identical to the work described in Section 6.6, except that no augering, jacking, or receiving pits are required.

The cost for excavating, shoring, trench backfill, and backfilling of the open cut area, including dewatering (if necessary), stabilization, and installing the steel sleeve shall be considered incidental to the contract unit price for the steel sleeve auger.

The cost of furnishing and installation of the steel sleeve, and all incidental work necessary for its installation, including casing spacers, will be paid for at the contract unit price bid per LINEAL FOOT for [SPECIFIED SIZE] DIAMETER STEEL SLEEVE, [SPECIFIED SIZE] WALL THICKNESS, OPEN CUT INSTALLATION. The cost for force main constructed within the sleeves will be paid for at its unit price.

6-8 SEWER FLOW CONTROL AND BYPASS PUMPING

It is the intent of this specification to provide the minimum requirements for sewer flow control bypass pumping.

The Contractor shall provide all labor, equipment, supervision, and materials necessary to control flows via bypass pumping through a section or sections of pipe designated for replacement. The Contractor shall be responsible for controlling and maintaining all sanitary and storm flows within the sewer system during the Work. The Contractor may drain flows by pipes, chases, fluming, bypass pumping, or other appropriate methods approved by the Owner.

Precautions shall be taken to ensure that flow control and dewatering operations shall not cause flooding or damage to public or private properties. In the event flooding or damage occurs, the Contractor shall make provisions to correct such damage at no additional cost to the Owner. The Contractor shall be responsible for any damages to public or private property, overflows from the sewer system and violations resulting in fines as a result of the dewatering/bypass operation.

When required for this project, the Contractor shall provide all labor, equipment, and materials necessary for the transfer of flow around the sections of pipe and/or the existing lift station. If the Contractor utilizes a subcontractor for bypass pumping operations, the subcontractor shall have at least five years of experience in the bypass pumping industry.

The bypass shall be made by diversion of the flow from an existing upstream location, around the section(s) to be taken from service for inspection or rehabilitation, to an existing downstream location. The bypass system shall be of adequate capacity to handle all flows, including wet weather related flows. If bypass pumping is utilized by the Contractor to control flows, the Contractor shall be responsible for monitoring the bypass pumping operation at all times until Work is complete. The location of pump(s), force main, discharge point, pumping rates, etc., shall be approved by the Owner.

The Contractor shall prepare a detailed Flow Control Plan that describes the measures to be used to control flows. The Contractor shall submit the Plan to the Engineer for review prior to beginning any flow control work. The Contractor's Plan shall include, but not necessarily be limited to, the following:

A. Stand-by/back-up pump set for the bypass application.
B. Detail plan for 24-hour monitoring.
C. Fueling of pump sets on demand.
D. Location of flow diversion structures, collapsible sewer plugs, dams, pumps, and related materials and equipment. Sewer plug method and type of plugs or gates to be used.
E. Key operational control factors, (i.e. maximum flow elevations upstream of dams).
F. Pump sizes and flow rates.
G. Destination of bypassed flows, including routing of force mains and provisions for vehicular and pedestrian traffic as necessary.
H. Wet weather event procedures.

I. Staging areas for the pumps.
J. Number, size, material, locations, and method of installation of suction piping.
K. Bypass pump sizes, capacity, number of each size to be on site, and power requirements.
L. Calculations of static lift, friction loss, and flow velocity.
M. Stand-by power.
N. Downstream discharge plan.
O. Method of noise control for each pump.
P. Temporary pipe supports and anchoring required.
Q. Heavy equipment needed for installation of pumps and piping.

The number and size of pumps utilized in bypass pumping shall be such that if the largest pump is out of service, bypass flows will be maintained during the bypass operation. Bypass pumping equipment shall include pumps, conduits, engines, and related equipment necessary to divert the flow or sewage around the section in which work is to be performed. In addition, the Contactor shall maintain at the same location and in operable condition, duplicate equipment to be used in case there is equipment failure. In this event, the Contractor shall promptly repair or replace the failed equipment to the satisfaction of the Owner.

The bypass system shall be of sufficient capacity to handle the peak flow of the pipe. The Contractor shall provide the necessary labor and supervision to set up and operate the pumping and bypassing system. The Contractor shall comply with any local sound ordinance. The equipment shall be manned continuously. During bypass pumping operations, the Contractor shall provide the necessary labor to continually monitor the operation and ensure uninterrupted and sufficient pumping at all times. The bypass pumping system shall be fueled every 24 hours or when the fuel tank reaches one quarter full, whichever comes first.

The Contractor shall provide all materials and labor as necessary to maintain flows in the existing sewer interceptor and all collector and lateral lines at all times and under all weather conditions. Interruption of flows will not be permitted. Overflows from bypass operations will not be permitted to enter into any streams or bodies of water. The Contractor will be solely responsible for any legal actions taken by the federal or state regulatory agencies if such overflows occur during construction.

New sewer pipes may be used by the Contractor to carry the sanitary flows after the new pipes have passed inspection and testing. Any “temporary” connections to the new sewer pipes shall be approved by the Owner.

New sewer pipes may be used by the Contractor to carry the sanitary flows after the new pipes have passed inspection and testing. Any “temporary” connections to the new sewer pipes shall be approved by the Owner.

Engine driven equipment for bypass pumping equipment shall have “critical grade mufflers.” The enclosure shall be portable in order to allow the enclosure to be moved when bypass pumping equipment is moved. These conditions are subject to any other additional stipulations that may be required by local sound ordinances.

Bypass pumping, including all elements detailed above, will be paid for at the contract lump sum price of SEWER FLOW CONTROL AND BYPASS PUMPING.

6-9 WATER USE

The Contractor desiring to use water from municipal hydrants will be required to make an application to the Owner, and if the request is granted, shall conform with the ordinances of the municipality, as well as with the rules and regulations of the Water Department, and will be held responsible for all damages to hydrants and water pipe used for the purposes of securing water. Pipe wrenches approved by the Water Department shall be utilized for opening and closing hydrants and other appurtenances.

When additional water from fire hydrants is necessary to avoid delay in normal work procedures, the water shall be conserved and not used unnecessarily. No fire hydrant shall be obstructed in case of a fire in the area served by the hydrant.

The Owner wishes to keep accurate records of the amount of water used for the construction purposes. The Contractor shall use an approved water meter to record usage, and shall report the total water used to the Water Superintendent at the end of each working day. The Contractor will be responsible for the cost of the water billed at the normal residential rate.

SECTION 7. FORCE MAIN VALVES

7-1 GENERAL

Provide valve operators complete, including a suitable enclosure, with all appurtenances necessary for the operator to perform its intended function. Such appurtenances include, but are not limited to, anchor bolts and other mounting hardware, extension stems, operating nuts, direct burial valve boxes, and other such items.

7-2 MANUFACTURERS

Acceptable manufacturers are listed below. Other manufacturers of equivalent products may be submitted.

A. Automatic Air Valves:
   1. Val-Matic Valve & Mfg. Corporation
   2. GA Industries
   3. APCO
   4. Engineer-approved equal

B. Eccentric Plug Valves:
   1. DeZURIK
   2. GA Industries
   3. Engineer-approved equal

C. Single Disc Swing Check Valves:
   1. American Flow Control
   2. Clow Valve Company
   3. M&H Valve Company
   4. Mueller Company
   5. GA Industries
   6. Engineer-approved equal

7-3 MATERIALS

Fabricate valves and operators of materials resistant to corrosion for the required service. For valve components the following standards shall apply:

A. Operator housings and pedestal handwheels:

1.	Cast iron	ASTM A 126, Class B ASTM A 48, Class 30 or 35
2.	Ductile iron	ASTM A 395 ASTM A 536, Grade 65-45-12
3.	Cast steel	ASTM A 27/A27M

B.	Operator worms, steel		ASTM A 29/A29M Grade Designation 8620
	1.	Operator gears, steel	ASTM A 572/A572M (spur & helical)
	2.	Worm gears, bronze	ASTM B 148, Alloy C95400 or C95500 ASTM B 584, Alloy C86300

7-4 VALVE JOINTS

Fabricate all valves with flanged ends, unless otherwise specified. For metallic flanged joints, provide flanges that are faced accurately at right angles to the axis of the casting. Face and drill flanges and shop coat with a rust-preventive compound before shipment. For flanged joints, provide flanges whose dimensions and drillings meet the requirements of ASME B16.1, 125 pounds as a minimum. For valves installed in force mains with test pressure requirements higher than 125 psi, provide flanges whose pressure ratings equal or exceed the specified test pressure of the force main. Furnish special drillings where required. For valves having flanges that do not conform to the thickness requirements of ASME B16.1, test each valve in accordance with the hydrostatic shell test pressure requirements of ASME B16.1.

7-4 OPERATING FORCE

Fabricate valves to limit the maximum force required to operate all manual valves, including but not limited to valves with wrench operated nuts, levers, handwheels and chainwheels, to 40 pounds. Limit the overall length of each wrench or single-arm lever to 18 inches. Limit the overall length of each dual-arm lever to 36 inches.

7-5 FLOOR AND BENCH STANDS

Accurately center floor and bench stands over the valve. Solidly bolt stands to the floor or support structure, with through-bolts wherever possible. Place approximately 3/4 inch of non-shrink cement grout beneath stands mounted on concrete or similar construction to assure uniform support. For stands installed within the area of a removable type floor, platform, or grating, securely mount them on their own support structure independent of the removable element, unless otherwise shown or specified.

7-6 VALVE VAULTS

Where a valve is shown or specified to be located within a vault, the vault shall be furnished and installed as shown on the drawings.

7-7 TYPE-SPECIFIC VALVE SPECIFICATIONS

Provide valves of the type(s) specified conforming to the specifications detailed in the sections below.

7-7.01 AIR RELEASE VALVES

A. SCOPE AND INTENT

This specification is intended to cover the design, manufacture, and testing of 1 in. (25 mm) through 8 in. (200 mm) Wastewater Combination Air Valves suitable for pressures up to 150 psig (1000 kPa).

Wastewater Combination Air Valves shall be fully automatic float operated valves designed to exhaust large quantities of air during the filling of a piping system and close upon liquid entry. The valve shall open during draining or if a negative pressure occurs. The valve shall also release accumulated air from a piping system while the system is in operation and under pressure. The valve shall perform the functions of both Wastewater Air Release and Wastewater Air/Vacuum Valves and furnished as a single body and dual body type as indicated on the plans.

B. STANDARDS, APPROVALS, AND VERIFICATION

Valves shall be manufactured and tested in accordance with American Water Works Association (AWWA) Standard C512. The manufacturer shall have a quality management system that is certified to ISO 9001:2000 by an accredited, certifying body.

C. CONNECTIONS

Single body valves sizes 4 in. (100 mm) and smaller shall have full size NPT inlets and outlets equal to the nominal valve size with a 2 in. (50 mm) inlet on 1 in. (25 mm) valves. The body inlet connections shall be hexagonal for a wrench connection. The body shall have 2” NPT cleanout and 1” NPT drain connection on the side of the casting. The valve shall have three additional NPT connections for the addition of backwash accessories.

D. DESIGN

Valves shall provide an extended body with a through flow area equal to the nominal size. Floats shall be unconditionally guaranteed against failure including pressure surges. Valves 4 in. (100 mm) and larger employing a bottom float guide shall be provided with a resilient bumper to cushion the float during sudden opening conditions. The seat shall provide drop tight shut off to the full valve pressure rating.

Single body valves shall have a full port orifice, a double guided plug, and an adjustable threaded orifice button. The 1 in. (25 mm) body shall be globe style to increase float clearance and reduce clogging. The plug shall be protected against direct water impact by an internal baffle and extended float stem. The float shall include a sensitivity skirt to minimize spillage.

E. MATERIALS AND CONSTRUCTION

Body material shall be ASTM A536 Grade 65-45-12 ductile iron. The float, plug, guide shafts, and bushings shall be constructed of Type 316 stainless steel. Non-metallic guides and bushings are not acceptable. Resilient seats shall be Buna-N. Interior of valve to be coated with fusion bonded epoxy. The exterior of the valve shall be coated with a universal alkyd primer.

Backwash accessories shall be furnished and shall consist of an inlet shut-off valve, a blow-off valve, a clean water inlet valve, rubber supply hose, and quick disconnect couplings. Accessory valves shall be quarter-turn, full ported bronze ball valves.

F. MANUFACTURER QUALIFICATIONS

The manufacturer shall demonstrate a minimum of five (5) years' experience in the manufacture of air valves. The valves shall be manufactured and tested in accordance with American Water Works Association Standard (AWWA) C512. When requested, the manufacturer shall provide test certificates, dimensional drawings, parts list drawings, and operation and maintenance manuals.

Wastewater Combination Air Valve shall be manufactured by Val-Matic Manufacturing Corporation, Elmhurst, IL, USA; GA Industries, Cranberry Township, PA, USA or Engineer-approved equal.

7-7.02 ECCENTRIC PLUG VALVES

A. SCOPE AND INTENT

This specification is intended to cover the design, manufacture, and testing of quarter turn plug valves meeting the requirements of AWWA C517 having an eccentric action that causes the plug to rise off the seat contact during the opening movement rather than sliding from its seat.

B. MATERIALS AND CONSTRUCTION

Provide plug valves with Buna-N or Chloroprene faced plugs.

Construct plug valves of cast iron or semi-steel at least equal to ASTM A 126, Class B, or ductile iron at least equal to ASTM A536 Grade 65-45-12. Construct the body seats with a welded-in overlay, of not less than 90 percent pure nickel, on all surfaces contacting the plug face. Make the overlay a minimum of 1/16-inch thick. Provide zinc plated bonnet bolts, studs and nuts on exposed valves and stainless steel buried valves.

Make the water-tightness of the valve seating adjustable. Provide a seating adjustment device that is external to the valve and that can be used without the need to remove the valve from the piping and with the valve under pressure.

Furnish plug valves with oil impregnated, permanently lubricated, Type 316 stainless steel bearings in the upper and lower journals.

Provide a stem seal consisting of multiple, self-adjusting and replaceable chevron type packing rings and a packing gland. Make the stem seal adjustable and replaceable without removing the valve from the piping and without the need to disassemble the valve and operator. For buried or submerged service, provide a sealed enclosure to keep the stem seal clean.

Unless otherwise specified, construct the valve with a minimum port area of 80 percent of the full area of the pipe in which the valve is installed.

Equip plug valves, except for buried or submerged service, with external visible indication of the plug position.

Unless otherwise shown or specified, equip valves with quarter-turn gear operators. Furnish one wrench for each size valve in each individual room or space in which valves are located. All geared operators to have bronze bearing located above and below the worm gear, as well as grease seals.

Unless otherwise shown or specified, for eccentric plug valves installed in horizontal piping, orient the valve such that when the shaft is in the horizontal position the seat is in the downstream position, and when the valve is in the open position, the plug is up. Unless otherwise shown or specified, for eccentric plug valves installed in vertical piping, orient the valve with the plug up when the valve is in the closed position.

C. SOURCE QUALITY CONTROL

Perform a bi-directional seat leakage shop test on each eccentric plug valve in accordance with Section 5 of AWWA C517. Demonstrate that there is no leakage past the plug.

Give each eccentric plug valve hydrostatic shop pressure tests in accordance with Section 5 of AWWA C517. Demonstrate with the hydrostatic tests that the valve is structurally sound and that there are no leaks through the external surfaces of the valve.

7-7.03 SINGLE DISC SWING CHECK VALVES

A. SCOPE AND INTENT

Provide single disc swing check valves designed to allow a full diameter passage and to operate with a minimum loss of pressure.

B. MATERIALS AND CONSTRUCTION

Provide 1/8- through 3-inch check valves that meet the requirements of MSS SP-80. Except as specified herein, provide 4-inch through 24-inch check valves that meet the requirements of AWWA C508.

Equip check valves with cast or ductile iron body; bronze or stainless steel renewable seat rings; bronze, cast or ductile iron disc with replaceable bronze or rubber disc rings; bronze disc hinge bushings; and stainless steel hinge pins. Carefully mount discs and provide discs that swivel in disc hinges. Provide pins, discs and other parts that are non-corrosive, non-sticking, and properly cured to operate satisfactorily within a temperature range of 34 to 100 degrees Fahrenheit and with the fluid specified.

Check valves shall be of the lifting arm type. Screw type check valves will not be allowed. Equip 6-inch and larger check valves with outside levers and weights.

7-8 PAYMENT

This work shall be paid for at the contract unit price per each for the type of valve specified at the diameter specified, complete with the valve vault (if specified), which payment shall include full compensation for furnishing labor, materials, and equipment, complete, in-place, and accepted, and for all materials necessary to complete the work as shown on the plans and specified above.

PREVAILING WAGES

Kankakee County Prevailing Wage Rates posted on 3/7/2022

						Overtime								
Trade Title	**Rg**	**Type**	**C**	**Base**	**Foreman**	**M-F**	**Sa**	**Su**	**Hol**	**H/W**	**Pension**	**Vac**	**Trng**	**Other Ins**
ASBESTOS ABT-GEN	All	BLD		39.46	40.46	1.5	1.5	2.0	2.0	9.90	21.74	0.00	1.30	
ASBESTOS ABT-GEN	All	HWY		40.44	41.44	1.5	1.5	2.0	2.0	9.90	21.74	0.00	1.30	
ASBESTOS ABT-MEC	All	BLD		38.85	41.96	1.5	1.5	2.0	2.0	14.42	12.61	0.00	0.82	
BOILERMAKER	All	BLD		52.61	57.34	2.0	2.0	2.0	2.0	6.97	22.34	0.00	1.40	
BRICK MASON	All	BLD		45.46	47.46	1.5	1.5	2.0	2.0	11.85	13.70	0.00	0.98	
CARPENTER	All	BLD		41.81	43.81	1.5	1.5	2.0	2.0	11.79	26.11	0.00	0.79	
CARPENTER	All	HWY		41.50	43.50	1.5	1.5	2.0	2.0	11.79	24.46	0.00	0.74	
CEMENT MASON	All	BLD		45.46	47.46	1.5	1.5	2.0	2.0	11.85	13.70	0.00	0.98	
CEMENT MASON	All	HWY		45.55	47.05	1.5	1.5	2.0	2.0	11.35	20.29	0.00	0.55	
CERAMIC TILE FINISHER	All	BLD		40.77		1.5	1.5	2.0	2.0	11.85	13.70	0.00	0.94	
COMMUNICATION TECHNICIAN	All	BLD		39.00	42.90	1.5	1.5	2.0	2.0	16.19	14.88	0.00	0.75	1.96
ELECTRIC PWR EQMT OP	All	ALL		56.55	62.05	1.5	1.5	2.0	2.0	12.94	19.11	0.00	3.17	
ELECTRIC PWR GRNDMAN	All	ALL		44.11	62.05	1.5	1.5	2.0	2.0	10.10	14.91	0.00	2.48	
ELECTRIC PWR LINEMAN	All	ALL		56.55	62.05	1.5	1.5	2.0	2.0	12.94	19.11	0.00	3.17	
ELECTRICIAN	All	BLD		48.11	52.44	1.5	1.5	2.0	2.0	16.64	20.24	0.00	1.23	4.21
ELEVATOR CONSTRUCTOR	All	BLD		51.01	57.39	2.0	2.0	2.0	2.0	16.02	20.21	4.08	0.65	
GLAZIER	All	BLD		47.60	49.10	1.5	2.0	2.0	2.0	14.99	23.55	0.00	1.43	
HEAT/FROST INSULATOR	All	BLD		51.80	54.91	1.5	1.5	2.0	2.0	14.42	15.36	0.00	0.82	
IRON WORKER	All	ALL		44.50	48.95	2.0	2.0	2.0	2.0	12.71	24.91	0.00	1.00	
LABORER	All	BLD		38.46	39.46	1.5	1.5	2.0	2.0	9.90	21.74	0.00	0.80	
LABORER	All	HWY		39.44	40.44	1.5	1.5	2.0	2.0	9.90	21.74	0.00	0.80	
LABORER, SKILLED	All	BLD		38.46	39.46	1.5	1.5	2.0	2.0	9.90	21.74	0.00	0.80	
LABORER, SKILLED	All	HWY		39.44	40.44	1.5	1.5	2.0	2.0	9.90	21.74	0.00	0.80	
LATHER	All	BLD		41.81	43.81	1.5	1.5	2.0	2.0	11.79	26.11	0.00	0.79	
MACHINIST	All	BLD		50.68	53.18	1.5	1.5	2.0	2.0	8.93	8.95	1.85	1.47	
MARBLE FINISHER	All	BLD		40.77		1.5	1.5	2.0	2.0	11.85	13.70	0.00	0.94	
MARBLE MASON	All	BLD		45.46	47.46	1.5	1.5	2.0	2.0	11.85	13.70	0.00	0.98	
MATERIAL TESTER I	All	ALL		39.44	40.44	1.5	1.5	2.0	2.0	9.90	21.74	0.00	0.80	
MATERIALS TESTER II	All	ALL		39.44	40.44	1.5	1.5	2.0	2.0	9.90	21.74	0.00	0.80	
MILLWRIGHT	All	BLD		41.81	43.81	1.5	1.5	2.0	2.0	11.79	26.11	0.00	0.79	
OPERATING ENGINEER	All	BLD	1	53.60	57.60	2.0	2.0	2.0	2.0	21.40	18.60	2.00	2.40	

OPERATING ENGINEER	All	BLD	2	52.30	57.60	2.0	2.0	2.0	2.0	21.40	18.60	2.00	2.40	
OPERATING ENGINEER	All	BLD	3	49.75	57.60	2.0	2.0	2.0	2.0	21.40	18.60	2.00	2.40	
OPERATING ENGINEER	All	BLD	4	48.00	57.60	2.0	2.0	2.0	2.0	21.40	18.60	2.00	2.40	
OPERATING ENGINEER	All	BLD	5	57.35	57.60	2.0	2.0	2.0	2.0	21.40	18.60	2.00	2.40	
OPERATING ENGINEER	All	BLD	6	54.60	57.60	2.0	2.0	2.0	2.0	21.40	18.60	2.00	2.40	
OPERATING ENGINEER	All	BLD	7	56.60	57.60	2.0	2.0	2.0	2.0	21.40	18.60	2.00	2.40	
OPERATING ENGINEER	All	HWY	1	51.80	55.80	1.5	1.5	2.0	2.0	21.40	18.60	2.00	2.40	
OPERATING ENGINEER	All	HWY	2	51.25	55.80	1.5	1.5	2.0	2.0	21.40	18.60	2.00	2.40	
OPERATING ENGINEER	All	HWY	3	49.20	55.80	1.5	1.5	2.0	2.0	21.40	18.60	2.00	2.40	
OPERATING ENGINEER	All	HWY	4	47.80	55.80	1.5	1.5	2.0	2.0	21.40	18.60	2.00	2.40	
OPERATING ENGINEER	All	HWY	5	46.60	55.80	1.5	1.5	2.0	2.0	21.40	18.60	2.00	2.40	
OPERATING ENGINEER	All	HWY	6	54.80	55.80	1.5	1.5	2.0	2.0	21.40	18.60	2.00	2.40	
OPERATING ENGINEER	All	HWY	7	52.80	55.80	1.5	1.5	2.0	2.0	21.40	18.60	2.00	2.40	
PAINTER	All	ALL		38.19	40.19	1.5	1.5	1.5	2.0	16.57	7.24	0.00	1.10	
PAINTER - SIGNS	All	BLD		40.74	45.75	1.5	1.5	2.0	2.0	3.04	3.90	0.00	0.00	
PILEDRIVER	All	BLD		41.81	43.81	1.5	1.5	2.0	2.0	11.79	26.11	0.00	0.79	
PIPEFITTER	All	BLD		52.00	55.00	1.5	1.5	2.0	2.0	11.60	21.85	0.00	2.92	
PLASTERER	All	BLD		45.46	47.46	1.5	1.5	2.0	2.0	11.85	13.70	0.00	0.98	
PLUMBER	All	BLD		48.80	51.75	1.5	1.5	2.0	2.0	16.45	16.75	0.00	1.47	
ROOFER	All	BLD		46.70	50.70	1.5	1.5	2.0	2.0	11.58	14.56	0.00	0.96	
SHEETMETAL WORKER	All	BLD		51.83	54.42	1.5	1.5	2.0	2.0	11.22	19.08	0.00	1.45	2.46
SIGN HANGER	All	BLD		35.39	37.39	1.5	1.5	2.0	2.0	10.00	13.15	0.00	0.53	
SPRINKLER FITTER	All	BLD		43.45	46.45	1.5	1.5	2.0	2.0	10.55	14.22	0.00	0.52	
TERRAZZO FINISHER	All	BLD		40.77		1.5	1.5	2.0	2.0	11.85	13.70	0.00	0.94	
TERRAZZO MASON	All	BLD		45.46	47.46	1.5	1.5	2.0	2.0	11.85	13.70	0.00	0.98	
TILE MASON	All	BLD		45.46	47.46	1.5	1.5	2.0	2.0	11.85	13.70	0.00	0.98	
TRUCK DRIVER	All	ALL	1	39.62	40.17	1.5	1.5	2.0	2.0	13.20	8.45	0.00	0.15	
TRUCK DRIVER	All	ALL	2	39.82	40.17	1.5	1.5	2.0	2.0	13.20	8.45	0.00	0.15	
TRUCK DRIVER	All	ALL	3	40.02	40.17	1.5	1.5	2.0	2.0	13.20	8.45	0.00	0.15	
TRUCK DRIVER	All	ALL	4	40.17	40.17	1.5	1.5	2.0	2.0	13.20	8.45	0.00	0.15	
TUCKPOINTER	All	BLD		45.46	47.46	1.5	1.5	2.0	2.0	11.85	13.70	0.00	0.98	

Legend

Rg Region

Type Trade Type - All,Highway,Building,Floating,Oil & Chip,Rivers

C Class

Base Base Wage Rate
OT M-F Unless otherwise noted, OT pay is required for any hour greater than 8 worked each day, Mon through Fri. The number listed is the multiple of the base wage.
OT Sa Overtime pay required for every hour worked on Saturdays
OT Su Overtime pay required for every hour worked on Sundays
OT Hol Overtime pay required for every hour worked on Holidays
H/W Health/Welfare benefit
Vac Vacation
Trng Training
Other Ins Employer hourly cost for any other type(s) of insurance provided for benefit of worker.

Explanations KANKAKEE COUNTY

The following list is considered as those days for which holiday rates of wages for work performed apply: New Years Day, Memorial Day, Fourth of July, Labor Day, Thanksgiving Day, Christmas Day and Veterans Day in some classifications/counties. Generally, any of these holidays which fall on a Sunday is celebrated on the following Monday. This then makes work performed on that Monday payable at the appropriate overtime rate for holiday pay. Common practice in a given local may alter certain days of celebration. If in doubt, please check with IDOL.

EXPLANATION OF CLASSES

ASBESTOS - GENERAL - removal of asbestos material/mold and hazardous materials from any place in a building, including mechanical systems where those mechanical systems are to be removed. This includes the removal of asbestos materials/mold and hazardous materials from ductwork or pipes in a building when the building is to be demolished at the time or at some close future date.

ASBESTOS - MECHANICAL - removal of asbestos material from mechanical systems, such as pipes, ducts, and boilers, where the mechanical systems are to remain.

CERAMIC TILE FINISHER, MARBLE FINISHER, AND TERRAZZO FINISHER

The laying, setting and finishing of all tile where used for floors, walls, ceilings, walks, promenade roofs, stair treads, stair risers, facings, hearths, fireplaces, and decorative inserts, together with any marble plinths, thresholds or window stools used in connection with any tile work; also to prepare and set all concrete, cement, brickwork, or other foundation or materials that may be required to properly set and complete such work; the setting or bedding of all tiling, stone, marble, composition, glass, mosaic, or other materials forming the facing, hearth or fireplace of a mantle, or the mantle complete, together with the setting of all cement, brickwork, or other material required in connection with the above work; also the slabbing and fabrication of tile mantels, counters and tile panels of every description and the erection and installation of same and the building, shaping, forming, construction, or repairing of all fireplace work, whether in connection with the mantle hearth facing or not, and the setting and preparing of all material, such as cement, plaster, mortar, brickwork, iron work or other materials necessary for the proper and safe construction and completion of such work. The term "Ceramic" is used for naming the classification only and is in no way a limitation of the product handled. Ceramic takes into consideration most hard tiles.

COMMUNICATIONS TECHNICIAN

Installing, manufacturing, assembling and maintaining sound and intercom, protection alarm (security), fire alarm, master antenna television, closed circuit television, low voltage control for computers and/or door monitoring, school communications systems, telephones and servicing of nurse and emergency calls, and the installation and maintenance of transmit and receive antennas, transmitters, receivers, and associated apparatus which operates in conjunction with above systems. All work associated with

these system installations will be included EXCEPT the installation of protective metallic conduit in new construction projects (excluding less than ten-foot, runs strictly for protection of cable) and 120 volt AC (or higher) power wiring and associated hardware.

LABORER, SKILLED - BUILDING

The skilled laborer building (BLD) classification shall encompass the following types of work, irrespective of the site of the work: caisson workers plus depth, gunnite nozzle men, lead man on sewer work, welders, cutters, burners and torchmen, chain saw operators, paving breaker, jackhammer and drill operators, layout man and/or drainage tile layer, steel form setters - street and highway, air tamping hammerman, signal man on crane, concrete saw operator, screenman on asphalt pavers, front end man on chip spreader, laborers tending masons with hot materials or where foreign materials are used, multiple concrete duct-leadman, luteman, asphalt raker, curb asphalt machine operator, ready mix scalemen (permanent, portable or temporary plant), laborers handling masterplate or similar materials, laser beam operator, concrete burning machine operator, coring machine operator, plaster tenders, underpinning and shoring of buildings, material selector when working with fire-brick or castable material, fire watch, signaling of all power equipment, and tree topper or trimmer when in connection with construction.

LABORER, SKILLED - HIGHWAY

The skilled laborer heavy and highway (HWY) classification shall encompass the following types of work, irrespective of the site of the work: handling of materials treated with oil, creosote, asphalt and/or any foreign materials harmful to skin or clothing, track laborers, chloride handlers, the unloading and loading with steel workers and re-bars, concrete workers (wet), tunnel helpers in free air, batch dumpers, mason tenders, kettle and tar men, plastic installers, scaffold workers, motorized buggies or motorized unit used for wet concrete or handling of building materials, laborers with de-watering systems, sewer workers plus depth, rod and chainmen, vibrator operators, mortar mixer operators, cement silica, clay, fly ash, lime and plasters, handlers (bulk or bag), cofferdam workers plus depth, on concrete paving, placing, cutting and tying or reinforcing, deck hand, dredge hand shore laborers, bankmen on floating plant, asphalt workers with machine, and layers, grade checker, power tools, stripping of all concrete forms excluding paving forms, dumpmen and spotters, when necessary, caisson workers plus depth, gunnite nozzle men, welders, cutters, burners and torchmen, chain saw operators, paving breaker, jackhammer and drill operators, layout man and/or drainage tile layer, steel form setters - street and highway, air tamping hammerman, signal man on crane, concrete saw operator, screedman on asphalt pavers, front end man on chip spreader, multiple concrete duct, luteman, asphalt raker, curb asphalt machine operator, ready mix scalemen (portable or temporary plant), laser beam operator, concrete burning machine operator, and coring machine operator.

MATERIAL TESTER I: Hand coring and drilling for testing of materials; field inspection of uncured concrete and asphalt.

MATERIAL TESTER II: Field inspection of welds, structural steel, fireproofing, masonry, soil, facade, reinforcing steel, formwork, cured concrete, and concrete and asphalt batch plants; adjusting proportions of bituminous mixtures.

OPERATING ENGINEER - BUILDING

Class 1. Asphalt Plant; Asphalt Spreader; Autograde; Backhoes with Caisson Attachment; Batch Plant; Benoto (requires Two Engineers); Boiler and Throttle Valve; Caisson Rigs; Central Redi-Mix Plant; Combination Back Hoe Front End-loader Machine; Compressor and Throttle Valve; Concrete Breaker (Truck Mounted); Concrete Conveyor; Concrete Conveyor (Truck Mounted); Concrete Paver Over 27E cu. ft; Concrete Paver 27E cu. ft. and Under: Concrete Placer; Concrete Placing Boom; Concrete Pump (Truck Mounted); Concrete Tower; Cranes, All; Cranes, Hammerhead; Cranes, (GCI and similar Type); Creter Crane; Spider Crane; Crusher, Stone, etc.; Derricks, All; Derricks, Traveling; Formless Curb and Gutter Machine; Grader, Elevating; Grouting Machines; Heavy Duty Self-Propelled Transporter or Prime Mover; Highlift Shovels or Front Endloader 2-1/4 yd. and over; Hoists, Elevators, outside type rack and pinion and similar machines; Hoists, One, Two and Three Drum; Hoists, Two Tugger One Floor; Hydraulic Backhoes; Hydraulic Boom Trucks; Hydro Vac (and similar equipment); Locomotives, All; Motor Patrol; Lubrication Technician; Manipulators; Pile Drivers and Skid Rig; Post Hole Digger; Pre-Stress Machine; Pump Cretes Dual Ram; Pump Cretes: Squeeze

Cretes-Screw Type Pumps; Gypsum Bulker and Pump; Raised and Blind Hole Drill; Roto Mill Grinder; Scoops - Tractor Drawn; Slip-Form Paver; Straddle Buggies; Operation of Tie Back Machine; Tournapull; Tractor with Boom and Side Boom; Trenching Machines.

Class 2. Boilers; Broom, All Power Propelled; Bulldozers; Concrete Mixer (Two Bag and Over); Conveyor, Portable; Forklift Trucks; Highlift Shovels or Front Endloaders under 2-1/4 yd.; Hoists, Automatic; Hoists, Inside Elevators; Hoists, Sewer Dragging Machine; Hoists, Tugger Single Drum; Laser Screed; Rock Drill (Self-Propelled); Rock Drill (Truck Mounted); Rollers, All; Steam Generators; Tractors, All; Tractor Drawn Vibratory Roller; Winch Trucks with "A" Frame.

Class 3. Air Compressor; Combination Small Equipment Operator; Generators; Heaters, Mechanical; Hoists, Inside Elevators (remodeling or renovation work); Hydraulic Power Units (Pile Driving, Extracting, and Drilling); Pumps, over 3" (1 to 3 not to exceed a total of 300 ft.); Low Boys; Pumps, Well Points; Welding Machines (2 through 5); Winches, 4 Small Electric Drill Winches.

Class 4. Bobcats and/or other Skid Steer Loaders; Oilers; and Brick Forklift.

Class 5. Assistant Craft Foreman.

Class 6. Gradall.

Class 7. Mechanics; Welders.

OPERATING ENGINEERS - HIGHWAY CONSTRUCTION

Class 1. Asphalt Plant; Asphalt Heater and Planer Combination; Asphalt Heater Scarfire; Asphalt Spreader; Autograder/GOMACO or other similar type machines: ABG Paver; Backhoes with Caisson Attachment; Ballast Regulator; Belt Loader; Caisson Rigs; Car Dumper; Central Redi-Mix Plant; Combination Backhoe Front Endloader Machine, (1 cu. yd. Backhoe Bucket or over or with attachments); Concrete Breaker (Truck Mounted); Concrete Conveyor; Concrete Paver over 27E cu. ft.; Concrete Placer; Concrete Tube Float; Cranes, all attachments; Cranes, Tower Cranes of all types: Creter Crane: Spider Crane; Crusher, Stone, etc.; Derricks, All; Derrick Boats; Derricks, Traveling; Dredges; Elevators, Outside type Rack & Pinion and Similar Machines; Formless Curb and Gutter Machine; Grader, Elevating; Grader, Motor Grader, Motor Patrol, Auto Patrol, Form Grader, Pull Grader, Subgrader; Guard Rail Post Driver Truck Mounted; Hoists, One, Two and Three Drum; Heavy Duty Self-Propelled Transporter or Prime Mover; Hydraulic Backhoes; Backhoes with shear attachments up to 40' of boom reach; Lubrication Technician; Manipulators; Mucking Machine; Pile Drivers and Skid Rig; Pre-Stress Machine; Pump Cretes Dual Ram; Rock Drill - Crawler or Skid Rig; Rock Drill - Truck Mounted; Rock/Track Tamper; Roto Mill Grinder; Slip-Form Paver; Snow Melters; Soil Test Drill Rig (Truck Mounted); Straddle Buggies; Hydraulic Telescoping Form (Tunnel); Operation of Tieback Machine; Tractor Drawn Belt Loader; Tractor Drawn Belt Loader (with attached pusher - two engineers); Tractor with Boom; Tractaire with Attachments; Traffic Barrier Transfer Machine; Trenching; Truck Mounted Concrete Pump with Boom; Raised or Blind Hole Drills (Tunnel Shaft); Underground Boring and/or Mining Machines 5 ft. in diameter and over tunnel, etc; Underground Boring and/or Mining Machines under 5 ft. in diameter; Wheel Excavator; Widener (APSCO).

Class 2. Batch Plant; Bituminous Mixer; Boiler and Throttle Valve; Bulldozers; Car Loader Trailing Conveyors; Combination Backhoe Front Endloader Machine (Less than 1 cu. yd. Backhoe Bucket or over or with attachments); Compressor and Throttle Valve; Compressor, Common Receiver (3); Concrete Breaker or Hydro Hammer; Concrete Grinding Machine; Concrete Mixer or Paver 7S Series to and including 27 cu. ft.; Concrete Spreader; Concrete Curing Machine, Burlap Machine, Belting Machine and Sealing Machine; Concrete Wheel Saw; Conveyor Muck Cars (Haglund or Similar Type); Drills, All; Finishing Machine - Concrete; Highlift Shovels or Front Endloader; Hoist - Sewer Dragging Machine; Hydraulic Boom Trucks (All Attachments); Hydro-Blaster; Hydro Excavating (excluding hose work); Laser Screed; All Locomotives, Dinky; Off-Road Hauling Units (including articulating) Non Self-Loading Ejection Dump; Pump Cretes: Squeeze Cretes - Screw Type Pumps, Gypsum Bulker and Pump; Roller, Asphalt; Rotary Snow Plows; Rototiller, Seaman, etc., self-propelled; Self-Propelled Compactor; Spreader - Chip - Stone, etc.; Scraper - Single/Twin Engine/Push and Pull; Scraper - Prime Mover in Tandem (Regardless of Size); Tractors pulling attachments, Sheeps Foot, Disc,

Compactor, etc.; Tug Boats.

Class 3. Boilers; Brooms, All Power Propelled; Cement Supply Tender; Compressor, Common Receiver (2); Concrete Mixer (Two Bag and Over); Conveyor, Portable; Farm-Type Tractors Used for Mowing, Seeding, etc.; Forklift Trucks; Grouting Machine; Hoists, Automatic; Hoists, All Elevators; Hoists, Tugger Single Drum; Jeep Diggers; Low Boys; Pipe Jacking Machines; Post-Hole Digger; Power Saw, Concrete Power Driven; Pug Mills; Rollers, other than Asphalt; Seed and Straw Blower; Steam Generators; Stump Machine; Winch Trucks with "A" Frame; Work Boats; Tamper-Form-Motor Driven.

Class 4. Air Compressor; Combination - Small Equipment Operator; Directional Boring Machine; Generators; Heaters, Mechanical; Hydraulic Power Unit (Pile Driving, Extracting, or Drilling); Light Plants, All (1 through 5); Pumps, over 3" (1 to 3 not to exceed a total of 300 ft.); Pumps, Well Points; Vacuum Trucks (excluding hose work); Welding Machines (2 through 5); Winches, 4 Small Electric Drill Winches.

Class 5. SkidSteer Loader (all); Brick Forklifts; Oilers.

Class 6. Field Mechanics and Field Welders

Class 7. Dowell Machine with Air Compressor; Gradall and machines of like nature.

TRUCK DRIVER - BUILDING, HEAVY AND HIGHWAY CONSTRUCTION Class 1. Two or three Axle Trucks. A-frame Truck when used for transportation purposes; Air Compressors and Welding Machines, including those pulled by cars, pick-up trucks and tractors; Ambulances; Batch Gate Lockers; Batch Hopperman; Car and Truck Washers; Carry-alls; Fork Lifts and Hoisters; Helpers; Mechanics Helpers and Greasers; Oil Distributors 2-man operation; Pavement Breakers; Pole Trailer, up to 40 feet; Power Mower Tractors; Self-propelled Chip Spreader; Skipman; Slurry Trucks, 2-man operation; Slurry Truck Conveyor Operation, 2 or 3 man; Teamsters; Unskilled dumpman; and Truck Drivers hauling warning lights, barricades, and portable toilets on the job site.

Class 2. Four axle trucks; Dump Crets and Adgetors under 7 yards; Dumpsters, Track Trucks, Euclids, Hug Bottom Dump Turnapulls or Turnatrailers when pulling other than self-loading equipment or similar equipment under 16 cubic yards; Mixer Trucks under 7 yeards; Ready-mix Plant Hopper Operator, and Winch Trucks, 2 Axles.

Class 3. Five axle trucks; Dump Crets and Adgetors 7 yards and over; Dumpsters, Track Trucks, Euclids, Hug Bottom Dump Turnatrailers or turnapulls when pulling other than self-loading equipment or similar equipment over 16 cubic yards; Explosives and/or Fission Material Trucks; Mixer Trucks 7 yards or over; Mobile Cranes while in transit; Oil Distributors, 1-man operation; Pole Trailer, over 40 feet; Pole and Expandable Trailers hauling material over 50 feet long; Slurry trucks, 1-man operation; Winch trucks, 3 axles or more; Mechanic--Truck Welder and Truck Painter.

Class 4. Six axle trucks; Dual-purpose vehicles, such as mounted crane trucks with hoist and accessories; Foreman; Master Mechanic; Self-loading equipment like P.B. and trucks with scoops on the front.

Other Classifications of Work:

For definitions of classifications not otherwise set out, the Department generally has on file such definitions which are available. If a task to be performed is not subject to one of the classifications of pay set out, the Department will upon being contacted state which neighboring county has such a classification and provide such rate, such rate being deemed to exist by reference in this document. If no neighboring county rate applies to the task, the Department shall undertake a special determination, such special determination being then deemed to have existed under this determination. If a project requires these, or any classification not listed, please contact IDOL at 217-782-1710 for wage rates or clarifications.

LANDSCAPING

Landscaping work falls under the existing classifications for laborer, operating engineer and truck driver. The work performed by

landscape plantsman and landscape laborer is covered by the existing classification of laborer. The work performed by landscape operators (regardless of equipment used or its size) is covered by the classifications of operating engineer. The work performed by landscape truck drivers (regardless of size of truck driven) is covered by the classifications of truck driver.

SPECIAL PROVISIONS

TABLE OF CONTENTS

CITY OF KANKAKEE
SANITARY SEWER CLEANING AND TELEVISING TO OUTFALL
SPECIAL PROVISIONS

GENERAL

The following Special Provisions supplement the "Standard Specifications for Road and Bridge Construction", adopted January 1, 2022; the latest editions of the “Supplemental Specifications and Interim Special Provisions” and the "Illinois Manual on Uniform Traffic Control Devices for Streets and Highways" and the “Manual of Test Procedures for Materials” in effect on the date of the invitation for bids; the "Supplemental Specifications and Recurring Special Provisions", the “Standard Specifications for Water and Sewer Main Construction in Illinois”, latest edition; the Division I General Requirements and Covenants and the Division II Technical Specifications which apply to and govern the proposed improvement, and in case of conflict with any part, or parts of said specifications, the said Special Provisions shall take precedence and shall govern.

However, in all cases, the Division I General Requirements and Covenants of the specifications shall take precedence over the Division 100 General Requirements and Covenants of the Standard Specifications for Road and Bridge Construction and shall govern.

SCOPE OF WORK

This project consists of cleaning and internal television inspection of sanitary sewers and manholes and the lawful removal and disposal of accumulated and recovered materials, all in the City of Kankakee, Illinois (Owner).

The Contractor shall be responsible to sufficiently familiarize himself with the local conditions prior to bidding the project. It is hereby understood and agreed that the contract unit prices shall prevail throughout the contract, and that adjustments to unit prices will not be allowed for any increase or decrease to the contract quantities or due to varying levels of cleaning which may be required.

COMPLETION SCHEDULE

It is anticipated that the contract will be awarded on Monday, May 9, 2022. It is also anticipated that all requisite permits will be in hand no later than May 3, 2022. Time is of the essence for this contract. All work contained within this contract, including restoration of surface areas disturbed by the Contractor, if any, shall be completed by Saturday, July 30, 2022.

The Completion date will be adjusted accordingly if the contract is not awarded on the specified date. It is the Contractor’s responsibility to ensure that the contract documents and insurance requirements are met in a timely manner as no work will be allowed until this information is received and correct. No adjustment to completion date will be made if this requirement is not met. If there is any delay in obtaining the IDOT permits beyond the date anticipated above, the completion date will be extended the same amount of time.

Failure to complete the work on time may result in assessment of liquidated damages in accordance with Section 8-9, “FAILURE TO COMPLETE THE WORK ON TIME” of the General Requirements & Covenants of this contract.

FUNDING LIMITS

The quantities called for in this contract indicate the amount of work to be expected. The actual amounts for the various items may vary depending upon actual field conditions. The City reserves the right to reduce or increase the scope of project quantities and to delete entire line items. It shall be understood and agreed upon that the unit prices for these items shall prevail throughout the period of the contract and that no additional compensation per unit price or otherwise will be allowed for any increase or decrease in the quantities, including but not limited to, decreases due to the deletion of an entire location/section of the improvement. No increases in unit price will be allowed if method of construction changes due to a decrease in quantity.

Under no circumstances can the awarded dollar amount be exceeded during the project without written authorization from the City. The Contractor is responsible for tracking quantities to ensure this does not happen.

PREQUALIFICATION

The Contractor shall have sufficient experience, as determined by the Owner and their representatives, in the field of sewer cleaning and televising to warrant release of the bid documents. The contractor shall provide such documentation as is deemed necessary upon request that would demonstrate the contactor has completed at least five sewer cleaning and televising projects for a municipality or sanitary district over the past three years with a minimum contract dollar value of $200,000. The contractor must use National Association of Sewer Services Companies (NASSCO) Pipeline Assessment and Certification Program (PACP) certified operators for the televising of the sewer on this project and must supply the NASSCO certification numbers for the operators on the job.

WAGE RATES

This contract calls for the construction of a “public work,” within the meaning of the Illinois Prevailing Wage Act, 820 ILCS 130/.01 et seg. (the Act”). The Act requires contractors and subcontractors to pay laborers, workers and mechanics performing services on public works projects no less than the “prevailing rate of wages” (hourly cash wages plus fringe benefits) in the county where the work is performed. For information regarding current prevailing wage rates, please refer to the Illinois Department of Labor’s website.

All Contractors and Subcontractors rendering services under this Contractor must comply with all requirements of the Act, including but not limited to, all wage, notice and record keeping duties.

INSURANCE REQUIREMENTS

The Insurance Requirements can be found in Section 7 of the General Requirements "Legal Relations and Responsibility to the Public". The Contractor and any Subcontractors shall obtain and thereafter keep in force for the term of the Contract the insurance coverage specified in this section. The Contractor shall not commence work under the Contract until all the insurance required by this section or any Special Provision has been obtained.

Section 7.02E Pollution Liability **WILL** be required as part of this project.
Section 7.02F Professional Liability **WILL NOT** be required as part of this project.

JOINT VENTURES, CONTRACTORS, and SUBCONTRACTORS

No joint venture shall be permitted on this project. The Contractor shall be required to perform the majority, or more than fifty percent (50%) of the dollar value, of the contract with his own resources (labor, equipment, materials, accessories, tools, transportation, services, technical competence, etc.). The Contractor may subcontract a minority part of the work.

GUARANTEE

All materials and equipment shall be guaranteed for a period of one (1) year from the date of written acceptance by the Owner. Upon receipt of notice from the Owner of failure of any part of the system during the guarantee period, new replacement parts shall be furnished and installed by the Contractor at no additional cost to the Owner

WORK HOURS

The Contractor may prosecute work between the hours of 7:00 a.m. and 6:00 p.m., Monday thru Friday and Saturdays between the hours of 8:00 a.m. and 6:00 p.m. No work will be permitted between the hours of 6:00 p.m. and 7:00 a.m., on Sundays, or on holidays, without prior written permission of the Owner.

NOTIFICATION REQUIREMENTS

The Contractor shall provide two (2) business days of advanced written notice to: 1.) the City of Kankakee and the Engineer prior to the start of the work 2.) those properties with connections to the sewer sections to be cleaned and televised within the forthcoming workday via door hangers, and 3.) any other properties that may potentially be adversely affected by the cleaning and televising operations via door hangers. The notification shall be of a form and method as approved by the City of Kankakee.

IDOT RIGHT-OF-WAY

No work shall be performed in the IDOT ROW until all necessary permits have been obtained by the Contractor from the Illinois Department of Transportation. The costs for obtaining all permits will be considered incidental to the contract and shall include any necessary bonds or insurance required. **I-57 AND Illinois Route 17/Court Street are under IDOT's jurisdiction.**

TRAFFIC CONTROL

Traffic Control shall be in accordance with the applicable sections of the Standard Specifications for Road and Bridge Construction, the applicable guidelines contained in the Illinois Manual on Uniform Traffic Control Devices for Streets and Highways, these special provisions and any special details and Highway Standards contained herein and, in the plans, and specifications and the Standard Specifications for Traffic Control Items.

Special attention is called to §107.09 and §107.14 of the Standard Specifications for Road and Bridge Construction and the Highway Standards: #701001, #701006, #701011, #701501, #701801, #701901.

Section 107.09 of the Standard Specification is amended as follows for this work:

First paragraph (p.28), first sentence:
The Contractor shall notify the Owner and not the Engineer, of the start of the work as required.
Sixth paragraph (p. 29), last sentence:
The Contractor's method of protection shall be subject to the approval of the Owner and not the Engineer.
Eighth Paragraph (p. 29), last sentence:
The Contractor shall notify the Owner and not the Engineer, about the horizontal or vertical clearance restriction.
Ninth Paragraph (p. 29), middle sentence:
The required signs shall be placed at the locations designated by the Owner and not the Engineer.
The Engineer shall not be responsible to determine the adequacy of the traffic control devices used at the site and/or to monitor their maintenance by the Contractor. The Contractor shall have the sole responsibility to provide adequate traffic control in compliance with these provisions.

The Contractor shall obtain, erect, maintain and remove all signs, barricades, flagmen and other traffic control devices as may be necessary for the purpose of regulating, warning, or guiding traffic. Placement and maintenance of all traffic control devices shall be in accordance with the applicable parts of Section 107.14 of the Standard Specifications and the Illinois Manual on Uniform Traffic Control Devices for Streets and Highways.

Traffic Control and Protection will not be compensated for separately, instead, all traffic control work required by the Standard Specifications shall be considered incidental to the contract.

WATER USE

The Contractor desiring to use water from municipal hydrants will be required to make an application to AQUA Illinois, and if the request is granted, he shall conform with the ordinances of the municipality, as well as with the rules and regulations of AQUA Illinois, and will be held responsible for all damages to hydrants and water pipes used for the purposes of securing water. Pipe wrenches approved by AQUA Illinois shall be utilized for opening and closing hydrants and other appurtenances.

It is anticipated that paperwork and a deposit of $1,500.00 will need to be completed with Aqua in exchange for a hydrant meter, however the Contractor shall contact Brian O'Keefe or Sonia Kay Bulmann, (815) 614-2026 to determine AQUA Illinois' water use requirements for this project, including metering, billing, etc. prior to submitting his bid. Additionally, it is expected that all water used should be metered and once the hydrant meter is returned with a log of usage, the deposit will be returned minus the value on the amount of water used.

When additional water from fire hydrants is necessary to avoid delay in normal work procedures, the water shall be conserved and not used unnecessarily. No fire hydrant shall be obstructed in case of a fire in the area served by the hydrant.

WORK IN CONFINED SPACES

The Contractor's attention is directed to the nature of the working environment for most of the work required in this contract. Working in confined spaces, such as manholes, is inherently dangerous and must be done only with certain equipment, procedures, and precautions. Properly

functioning equipment, including but not necessarily limited to a ventilator of adequate capacity, gas detectors, respiratory masks, winch, harness etc. and support personnel on the ground for the worker(s) in the manhole may be necessary at each work site.

This contract's means and methods for performing the required work, including safety provisions, are and remain the Contractor's responsibility. The Owner and the Engineer have neither any responsibility to monitor and/or inspect the Contractor's means and methods, including the safety equipment and/or practices, for performing the work required in this contract nor shall they assume any responsibility and/or liability whatsoever resulting from the Contractor's means and methods during this contract.

The cost of compliance with this requirement shall not be compensated for separately but shall be considered incidental to the contract.

MANHOLE ACCESS

The Contractor shall be solely responsible for accessing the facilities. The Owner will assist in locating all facilities but shall not be responsible for providing additional access to the facilities, other than identifying roadways and easements to access the project site.

SEWER FLOW CONTROL

The Contractor shall be responsible for maintaining sewer flow necessary for the continuation of sewer service during construction and/or inspection. The cost for the sewer flow control shall not be paid for separately but shall be merged into the unit price for the cleaning, internal inspection or repair activity being performed.

During sewer cleaning operations, the flows shall be reduced to a maximum of twenty five percent (25%) of the pipe diameter by manual operation of pump stations, plugging/blocking of the flows or by pumping/bypassing of the flows, as specified. During sewer repair operations, no sewer flows will be permitted.

Any sewer plugs utilized during bypass pumping shall be designed so that all or any portion of the sewage flow can be released. During the cleaning, inspection or repair portion of the operation, flows shall be controlled as described above. After these tasks have been completed, flows shall be restored to normal.

The Contractor shall not backup or flood existing services or buildings. This may require that the Contractor provide by-pass pumping capabilities. Any by-pass pumping that may be required will be considered incidental to the contract. Whenever flows in a sewer line are blocked, plugged or bypassed, sufficient precautions must be taken to protect the sewer lines from damage that might be inflicted by excessive sewer surcharging. The Contractor shall be solely responsible and liable for any property damages resulting from the work.

When pumping/bypassing is required, the Contractor shall supply the necessary pumps, conduits and other equipment to divert the flow of sewage around the sewer section in which work is to be performed. The bypass system shall be of sufficient capacity to handle existing flows plus additional flow that may occur during periods of a rain event. The Contractor will be responsible for furnishing the necessary labor and supervision to set up and operate the pumping and bypassing of the flow. If pumping is required on a twenty-four (24) hour basis, all engines shall be equipped in a manner to keep the pump noise at a minimum.

The cost of compliance with this requirement shall not be compensated for separately but shall be considered incidental to the contract.

SANITARY SEWER TO BE CLEANED

A. Description: This item of work shall consist of the cleaning of sewers and adjacent structures, i.e., manhole cleaning with high-velocity hydro-cleaning equipment at locations as shown on the plans or as directed by the Owner or Engineer.

Cleaning shall be performed on the entire sewer section starting at and including the upstream structure and continuing to and including the downstream structure. If cleaning of an entire section cannot be successfully performed from the downstream equipment set-up location, the Contractor shall set-up the cleaning equipment on the upstream structure and continue cleaning without additional compensation.

When, in the opinion of the Owner or Engineer, hydro-cleaning equipment cannot satisfactorily clean or remove obstructions in the pipe, such as root penetrations, mineral deposits, heavy debris, etc., the Contractor shall utilize the appropriate mechanical cleaning equipment and continue operations to remove the obstructions. This work shall not be paid for separately but shall be considered incidental to the contract.

If any debris remains on the benches, walls or inverts of any structures after cleaning has been completed, the Contractor shall be required to re-clean the structures and the adjacent downstream sections of sewer at no additional cost to the Owner.

It is recognized that there are some conditions, such as badly broken, collapsed, or eroded pipe, or major blockages, that may prevent cleaning from being accomplished or where additional sewer line damage would be done if cleaning is attempted or continued. Should conditions of this nature be encountered, the Contractor shall notify the Owner or Engineer immediately. The Owner or Engineer shall then determine an alternative cleaning method or choose not to clean that specific sewer section.

B. Cleaning Precautions: During sewer cleaning operations, satisfactory precautions shall be taken to ensure that the water pressure created does not damage or cause flooding of public or private property being served by the sewer. When possible, the flow of sewage in the sewer shall be utilized to provide the necessary pressure for hydraulic cleaning devices. If heavy-cleaning equipment is approved by the Owner or Engineer for use, extreme care shall be taken to ensure that the existing sewer is not damaged during the operations.

C. Debris Removal and Disposal: All sludge, dirt, sand, rocks, grease, roots, corroded or broken pipe pieces, concrete, asphalt, bricks, or any other material resulting from the cleaning operation shall be removed at the downstream structure of the section being cleaned by a “Vactor” or similar type of vacuum truck. Debris catching baskets shall also be required during any operation in which debris may pass from one sewer segment to an adjacent sewer segment. Passing material from structure section to structure section shall not be permitted.

All materials and debris collected during the cleaning operations shall be removed from the site and disposed of at the end of each workday. Under no circumstances will the Contractor be

allowed to accumulate debris on the site of work. The Owner will provide an accessible staging area within the municipality's limits for the temporary placement of a debris box.

It is the sole responsibility of the Contractor to properly dispose of all collected sewer debris daily. **This work shall be done at the Contractor's own expense and considered incidental to the contract.** All requirements of the Illinois Environmental Protection Agency and all other regulating agencies shall be followed. The Contractor shall be required to provide all necessary documentation for the proper and lawful disposal of debris. The Owner shall not be responsible for the disposal of the debris.

D. Cleaning Equipment: The Contractor shall provide all equipment necessary to meet the intent of the specification, including, but not limited to, high velocity water-jetting equipment, vacuum machines, hydraulically propelled equipment, or mechanically powered equipment. Cleaning equipment capable of cleaning lengths up to one thousand feet (1000') shall be provided. Equipment must be able to clean this length with vehicular access to only one structure. Whatever equipment is used, any necessary pulleys and/or supports shall be installed in structures so as not to restrict the cleaning operation or damage existing structures.

High-Velocity Hydro-Cleaning Equipment:

All high-velocity sewer cleaning equipment shall be constructed for ease and safety of operation. The equipment shall have a selection of two (2) or more high-velocity nozzles. The nozzles shall be capable of producing a scouring action from 15 degrees to 45 degrees in all size lines designated to be cleaned. Equipment shall also include a high velocity gun for washing and scouring structure walls and bench. The high velocity gun for washing manholes shall be capable of producing flows from a fine spray to a long-distance solid stream. The equipment shall carry its own water tank, auxiliary engines, pumps, and hydraulically driven hose reel. All controls shall be located so that the equipment is operated above ground.

Hydraulic Cleaning Equipment:

The equipment used shall be of the movable dam type and be constructed such that a portion of the dam may be collapsed at any time during the cleaning operation to protect against flooding of the upstream sewer lines. The movable dam shall be of an external diameter equal to the internal diameter of the sewer being cleaned and shall be provided with a flexible scraper around the outer periphery to ensure total grease removal. If sewer cleaning balls, or other such equipment, which cannot be collapsed instantly are used, precautions against flooding of upstream sewers (public or private) shall be taken.

Mechanical Cleaning Equipment:

Bucket machines shall be in pairs with sufficient power to perform the work in an efficient manner. Machines shall be belt operated or have an overload device. Machines with direct drive that could cause damage to the pipe will not be allowed. Where bucket machines and buckets are to be used, caution should be taken that a properly sized flexible cable be used so that breakage will not occur when hanging the cleaning equipment within the sewer.

A power rodding machine shall be of the continuous type capable of holding a minimum of one thousand feet (1000') of rod without joints, couplings, fittings or connectors. The rodding equipment shall be provided with a minimum rated 25 Hp motor drive unit. The rod shall be 4.0-gauge specifically treated steel. To ensure safe operations, the machine

shall have a fully enclosed body and an automatic safety throw-out clutch or relief valve. The rodding unit shall be able to pull brushes, swabs, and other cleaning equipment as well as the television camera. It shall also have a footage meter attached so that the location of the cleaning tools and/or television camera will be known at all times.

Lumberjacks and impact & drill cutters are multipurpose cutters running off water pressure designed to cut roots and used to remove grease, mineral deposits and protruding laterals. Since lumberjacks can rotate at up to 50,000 rpm, extreme caution is required to ensure that the existing sewer pipes are not damaged while utilizing this type of equipment.

Impact & drill cutters typically rotate at about 200 rpm with impacts of up to 1000 blows per minute. Three modes for impact & drill cutter types usually include impact and drill simultaneously, impact only and drill only. Extreme caution is required to ensure that the existing sewer pipes are not damaged while utilizing this type of equipment.

E. Acceptance of Sewer Cleaning: Acceptance of sewer line cleaning shall be made upon the successful completion of the televising inspection and shall be to the industry standard of 95% clean. If the televising inspection shows the cleaning to be unsatisfactory, the Contractor shall be required to re-clean and re-inspect the sewer line until the cleaning is shown to be satisfactory, at no additional cost to the Owner.

F. Measurement and Payment: The cost of this work, regardless of the number of set-ups, passes, or types of cleaning equipment used, including structure cleaning and heavy cleaning, shall be paid for at the contract unit price bid per FOOT for SANITARY SEWER TO BE CLEANED [DIAMETER].

HEAVY CLEANING OF SEWER

Heavy cleaning shall be deemed necessary, when in the opinion of the Engineer, continued use of high velocity hydro-cleaning does not meet the industry standard of 95% clean and cannot be satisfactorily utilized due to obstructions present in the sewer, i.e., heavy root penetrations, mineral deposits, built up debris in the line, etc.; that would prevent optimal viewing of the pipeline.

The Contractor shall then select such appropriate heavy cleaning equipment as listed under “Mechanical Cleaning Equipment” that would be capable of removing all dirt, grease, rocks, roots, mineral deposits, internal deposits, and other deleterious materials from the sewer line while preventing damage to that line.

It shall be understood that the cost for heavy cleaning, if necessary, shall be incidental to the sanitary sewers to be cleaned pay item and that no additional compensation shall be allowed.

INTERNAL TELEVISION INSPECTION OF SEWER

A. Description: The Contractor shall furnish the mobile television inspection studio, all television and other necessary types of equipment, and all materials, electricity, labor, technicians, etc., as may be needed to perform the closed-circuit television inspection of the sewers as shown on the plans or as directed by the Owner or Engineer.

The television inspection shall be performed in one section of sewer at a time between adjacent structures. The inspection shall be performed by pulling the television camera or crawling through

the section of the sewer along the axis of the pipe. The inspection may be performed in a forward or backward direction as dictated by the sewer line conditions at the time of the inspection.

The television inspection shall be conducted in such manner that the television control technician or supervisor, and the Owner or Engineer, can determine that the sewer line is thoroughly cleaned, and so that all leaking joints, pipe breaks, line sags or dips, service lines, roots, etc. can be accurately seen and located within and along the sewer line.

The operation of the television equipment shall be controlled by a skilled certified technician or supervisor who shall be located at the control panel in the mobile television inspection studio. The operator must be certified by NASSCO for PACP. The control of the television equipment may be accomplished by means of remote-control winches or by telephone or other suitable means of communications between the television control technician or supervisor in the mobile television inspection studio and the technicians operating the winches at either end of the sewer section being inspected.

The television control technician in the mobile television inspection studio shall, always, be able to move the television camera through the sewer in either direction without loss of quality in the video presentation on the television monitor. The television image on the monitor shall, always, be free of electrical interference and shall provide a clear, stable image and picture. If for any reason the television inspection image becomes unclear, out of focus, too dark or too light to see the condition of the sewer being televised, the Contractor will be directed to re-televise that section of sewer at no additional cost. When directed to do so by the Owner or Engineer, or television control technician, the television camera shall be stopped and/or backed up as required so either can view, analyze, and photograph when so desired any features or conditions that appear unusual or uncommon in a good sound sewer.

The travel speed of the television camera through the sewer shall be uniform and shall not exceed the maximum speed of 30 feet per minute, under normal conditions. Any means of propelling the camera through the sewer which produces non-uniform rates of speed, or which results in a speed faster than that specified by the Owner or Engineer will not be acceptable.

The television control technician shall be able to adjust the brightness of the lighting system built into the television camera and be able to change the focus of the television camera by remote control. The television image shall continuously be recorded with proper lighting. Services or sections of sewer that appear too dark or too light to see the condition of the sewer or the connected service shall be re-televised at no additional cost.

Television inspection of the sewer is required to start from the center of the manhole whether it is upstream or downstream and shall finish at the center of the manhole at the other end of the sewer section being televised. No preset measurements or starting the camera inside the pipe any distance will be allowed. This means that from the center of the manhole when the camera starts moving the footage counter shall be set at zero and increase accurately through the sewer pipe being televised. Every service connection shall be viewed to confirm whether it is active or capped.

Measurement of the exact location of any sewer line defects (i.e., breaks, sags, leaks, etc.) shall be at the ground level by means of a metering device. Markings on a cable, or the like, which would require interpolation for the structure depth, will not be allowed. Measurement meters shall be accurate to two-tenths of a foot (0.20'). A measuring target in front of the television camera

shall be used as an exact measurement reference point, and the meter reading shall show the exact location of this measurement reference point.

Where obstructions within the sewer line prevent the passage of televising equipment, the Contractor shall reset his equipment to pass through the sewer line section from the other end and thereby complete the inspection of the section.

To facilitate the television inspection of various sections of sewer lines having sags or depressed areas filled with water, a high-pressure jet cleaner shall be utilized to dewater the settled or sagged section of the sewer line. The high-pressure jet cleaner shall be used to pull the water away from the front of the television camera thereby exposing 95% of the pipe interior for internal television inspection. The television inspection of these sags or depressed areas is most important since these depressed areas are frequently caused by broken pipe, poor service line connections, or open pipe joints and are usually locations of probable infiltration and trouble. The Owner or Engineer shall determine when the high-pressure jet cleaner shall be utilized for this type of work.

B. Televising Equipment: The television camera used for the sewer line inspection shall be one specifically designed and constructed for such inspection work. Lighting for the camera shall be adequate and suitable, and adjustable to allow a clear picture of the entire periphery of the pipe. The camera shall be capable of rotating three hundred and sixty (360) degrees about its axis. The camera shall be waterproof and shall be operative in 100 percent humidity conditions.

The camera shall be small enough to pass through and clearly televise the interior of a six-inch (6") diameter sewer and all other larger sewer sizes up to and including the largest diameter sewer as bid on this project. The camera focal length or distance shall be adjustable through a range of six inches (6") to infinity. The television camera shall be capable of transmitting a picture having not less than 600 lines of resolution and in color. The picture shall be free at all times of electrical interference and shall provide a clear stable image having the number of lines of resolution specified.

To ensure optimum or peak picture quality throughout all conditions that may be encountered during the sewer inspection work, the variable intensity control of the camera lighting and the adjustments for focal length and iris control shall be under the direct control of the television control technician at the central control panel in the television inspection studio. The camera speed and direction of movement shall also be controlled by the television control technician in the television inspection studio.

The view seen by the television camera shall be transmitted to a monitor of not less than twelve inches (12") diagonally in size. The television monitor shall be located inside the mobile television studio. The monitor character generator shall be capable of creating the precise numeric manhole identification number with no truncation allowed regardless of the number of digits that make up the manhole identification number.

The mobile television studio shall be large enough to accommodate up to four people for the purpose of viewing the monitor while the inspection is in progress. The Owner or Engineer shall have access to view the television screen at all times.

The video recording equipment shall be the type on which both audio and video information can be recorded. This equipment shall be continuously connected to the television inspection or

monitoring equipment in such a manner that it can easily be turned on or off as the Owner or Engineer determines that a video or audio recording is or is not needed.

The video recording and monitoring equipment shall have the built-in capability to allow the Owner or Engineer, or television control technician, to instantly review both the audio and video quality of the video productions at all times during the television survey. Playback speed shall be continuously adjustable from 1/3 normal speed (for slow-motion viewing) to normal playback speed.

The central control panel, television camera controls, video recording equipment, etc. shall all be located in the mobile television studio. The television studio shall be mounted on a mobile device (truck or trailer) which will allow safe and orderly movement of the inspection equipment throughout the job site.

C. Digital Video Format: Digital Video Format (i.e., mpeg or avi) delivered one file per sewer line section shall be provided on two separate external USB 3.0 Portable Solid-State Drives (SSD) in digital format. All digital video and PDF report files shall be named in a manner such that the "to manhole" and "from manhole" is precisely defined for linkage to GIS. For example, a pipe segment with an upstream manhole number of 123 and a downstream manhole number of 456 shall be named “123-456.mpg” and “123-465.pdf”. **Two (2) copies of the finished video recordings on external hard drives and PDF reports shall be delivered to the Engineer, the cost of which shall not be paid for separately but shall be incidental to the contract.**

A video recording of the inspection view as it appears on the television monitor shall be taken for the complete length of all sewer lines that are television inspected or as may be directed by the Owner or Engineer. The video recording shall be made whenever television inspection is in process. However, the video recording shall be stopped after a short duration whenever the television camera movement is stopped or backed up to examine a defect for a length of time. Whenever the camera movement is restarted, the video recording should be restarted prior to any camera movement.

The video recording of the sewer line inspection shall produce a video image equal to or better than the quality of the picture on the television monitor. When the recorded video information is replayed and reviewed on the monitor/receiver, it shall be free of electrical interference and shall produce a clear, stable image with a resolution of not less than 600 lines.

The video recordings shall also supply a continuous audio record of all observations for the complete length of all sewer lines television inspected. The audio portion of the composite signal shall be sufficiently free of electrical interference, background noise, and heavy foreign or regional accents to provide an oral report that is clear and complete and easily discernible. The audio portion of the video reporting shall be recorded by the operating technician on the video as they are being produced and shall include the following:

1. Sewer line location (street name and address, structure to structure numbers, etc.)
2. Description and location of defects observed in the sewer line
3. Description and location of service laterals
4. Length of each sewer line section televised
5. All other information as encountered during inspection such as obstructions to camera passage and sags in the pipe which require dewatering

Dubbing the audio information onto the video tract after the internal television inspection is completed will not be permitted.

Video recordings shall be one file per sewer line section and shall be included on the external hard drives submitted. Two (2) hard drives containing all the video and report files shall be delivered to the Engineer. The hard drives shall be labeled **"CITY OF KANKAKEE – SANITARY SEWER CLEANING AND TELEVISING – LOWER RIVERVIEW"**.

D. Spreadsheet: Also included on each hard drive should be a master spreadsheet that has a record for each line segment televised. The spreadsheet shall be in MS Excel format and shall have hyperlinks to the video files and the associated PDF report for each section of sewer televised. It shall include the following information for each record:

- Date Televised
- Length Surveyed
- Pipe Segment Reference (Pipe ID)
- Upstream Manhole ID
- Upstream Manhole Rim to Invert
- Downstream Manhole ID
- Downstream Manhole Rim to Invert
- MPEG Video
- PDF Report
- Data Folder Location
- City, Village or Town
- Street Name
- Location Details
- Pipe Height (Diameter)
- Pipe Width
- Pipe Shape
- Pipe Material
- Additional Information
- Structural Quick
- Structural Index
- O&M Quick
- O&M Index
- Overall Quick
- Overall Index
- REL Project Number

E. Television Inspection Reports: The Contractor shall keep an electronic log or record covering the television inspection work and the information acquired for each sewer line section inspected. A sewer line section is defined here as the length of sewer which connects two (2) adjacent structures. Specialized forms shall be used for this log or record, and they must meet the approval of the Owner or Engineer prior to initiation of work for the project. After the televising is complete, the detailed observations from each final television inspection segment need to be submitted in a digital MS Access Database format as well as in PDF report format that includes the following information:

- Date and Time televised
- Name of Inspection company

- Name of TV control technician
- NASSCO certification number of TV control technician
- REL Project Number
- Sewer pipe ID (non-abbreviated structure-to-structure numbers in their entirety)
- Sewer line section location (street name, address nearest to each manhole)
- Sewer pipe size
- Sewer pipe material
- Sewer pipe length
- Depth of sewer in each manhole to within plus or minus 0.1 feet
- Sewer section joint length
- Upstream Manhole ID (provided by the Engineer)
- Downstream Manhole ID (provided by the Engineer)
- Name of the inspection video file for the sewer pipe
- Direction of flow and direction of camera movement in sewer line
- Root intrusion and mineral deposit locations and descriptions
- Notes on changes in sewer line grades, sewer dips, sags, etc.
- Sewer service line locations (distance from the upstream manhole)
- Sewer service line connection type (Y or T)
- Sewer service line location on the periphery of the sewer pipe (clock position)
- Sewer service line status (active/capped)
- Pipe damage and character, type, and location of such damage
- NASSCO structural, O+M and Overall pipe severity ranking
- NASSCO Quick Rating
- Other problems or remarks

The submittal of the MS Access database containing all television inspection observations as well as the PDF copies of the report shall be submitted on the two (2) hard drives and shall be considered incidental to the contract and must be submitted on or before the completion dates specified in the contract documents.

F. Final Project Reports: Two (2) hard copies of the final project reports shall be prepared by the Contractor and submitted to the Engineer prior to the completion deadline specified herein, as soon as possible after completion of cleaning and television inspection of all sewer lines. This report shall include as a minimum the following information:

1. Sewer line section television inspection logs or records and a summary of information on the logs or records.
2. Field maps showing field notes and the correct address location of each manhole shall be shown in addition to its identifying manhole number. The correct locations of all manholes should be marked on the plan sheets and submitted with the report and marked “AS FIELD LOCATED.”
3. An index of all video segments recorded and an identification record for each of those segments.

There shall be no separate or extra compensation for preparation and submittal of the final project reports. All the Contractor's costs for preparation and submittal of the final project reports shall be considered incidental to the contract.

G. Measurement and Payment: Measurement for payment will be made from center to center of upstream and downstream structures, from center of structure to end of pipe/inspection, or

other agreed upon stopping point for each foot of sewer line televised. The Contractor's unit proposal, price per foot for the television inspection of sewer lines, shall be considered as full compensation for furnishing all labor, equipment, and materials and for performing all work associated with the television inspection of the various sewer lines. There will be no separate or extra compensation for re-televising lines that show the cleaning or televising to be unsatisfactory, acquiring the location information required for the television inspection records, for recording and keeping said records for stopping and/or backing up the television camera to better view and analyze any unusual sewer line features or items, or for any other items of work that may be required.

Where obstructions within the sewer line prevent the passage of the television camera and other equipment, the Contractor shall reset his equipment so it can pass through the sewer from the other end of the sewer section and thereby complete the inspection of the sewer. This work all will be paid for at the contract unit price per FOOT for INTERNAL TELEVISION INSPECTION OF SEWER.

EQUIPMENT RETRIEVAL

The Contractor shall promptly retrieve at the end of the internal inspection all equipment, including television cameras, from the sewer being worked on. The municipality may, at its discretion, allow some additional retrieval time for any equipment which may get stuck in the sewer or in whose retrieval the Contractor may experience some difficulty. In such a case, the Contractor shall promptly contact the Owner or other similar designated public official to advise of the circumstances and to request additional retrieval time. The Contractor shall continue to maintain the sewer in continuous service during the entire retrieval process, using pumping or any other required means.

If it becomes necessary to excavate for equipment retrieval, the Contractor shall be responsible for restoring the sewer section disturbed in the retrieval efforts, to the satisfaction of the Owner, backfilling and restoring the disturbed ground surface to the pre-retrieval conditions or better.

To avoid equipment retrieval difficulty, the Contractor is encouraged at his discretion to pass the camera only through the sewer as a test-run to ascertain the retrieval conditions. Logging of defects or other conditions usually required to be logged in the internal inspection work will not be required during the test-run.

All materials and labor involved in the equipment retrieval and test-runs, including excavation, restoration of the sewer and ground surface described above, shall be considered incidental to the contract, and shall not be compensated for separately.

PROPERTY RESTORATION

It is anticipated that no public and/or private property shall be disturbed by this work. The contractor shall take all precautions to avoid such damage and shall restore any public and/or private property, including landscaping, damaged and/or disturbed by the proposed work, to the satisfaction of the Owner, at no additional compensation. If the Contractor encounters a situation which some private property or a public facility/infrastructure will suffer unavoidable damage or disturbance, the Contractor shall bring it to the Owner’s attention for a specific authorization to proceed with such work before the task in question is performed.

EXHIBITS

City of Kankakee

2022 Sanitary Sewer Proposed Cleaning & Televising

Project #22-R0357

PROJECT LOCATION

OVERVIEW MAP

NOT TO SCALE

Legend

- Sanitary Sewer Main
- Project Boundary
- City Limits
- Map Index Grid
- State Roads
- County Roads
- Hydrology

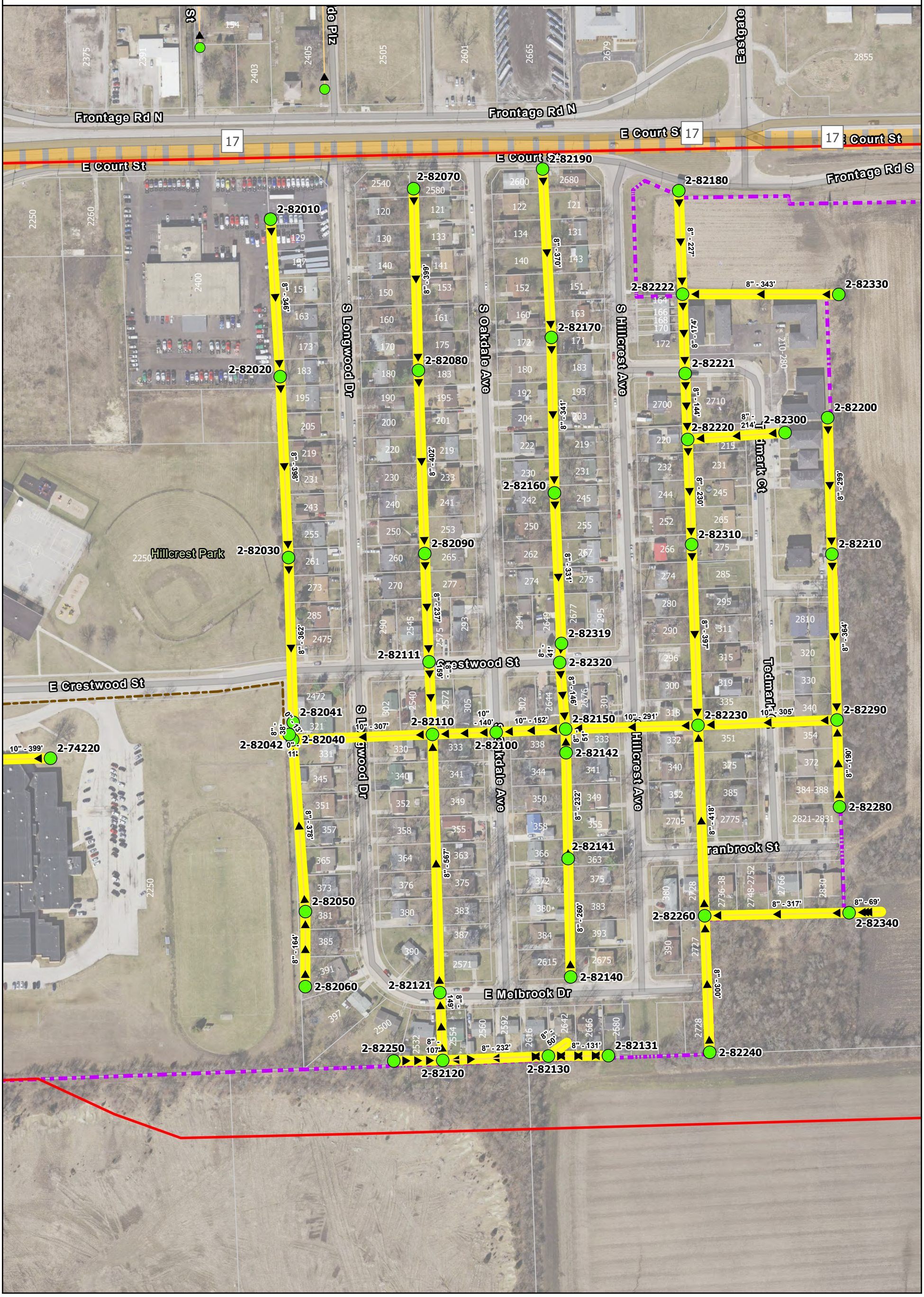
Robinson ENGINEERING

Date : 4/18/2022

City of Kankakee

2022 Sanitary Sewer Proposed Cleaning & Televising

Project #22-R0357



Date : 4/18/2022

City of Kankakee

2022 Sanitary Sewer Proposed Cleaning & Televising

Project #22-R0357

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8" - 213'
8" - 190'
4" - 264'
8" - 414'
8" - 297'
8" - 185'
10" - 273'
10" - 235'
10" - 16'
10" - 75'
10" - 391'
10" - 250'
10" - 348'
10" - 248'
10" - 399'
8" - 215'
8" - 152'
10" - 428'
8" - 282'
9" - 313'
8" - 365'
8" - 228'
8" - 229'
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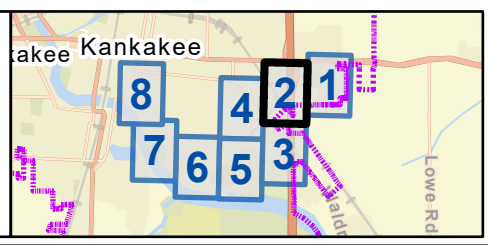
8" - 94'
8" - 342'
8" - 270'
8" - 349'
8" - 301'
8" - 115'
8" - 299'
8" - 399'

Eastridge Ave
Mt Calvary Cemetery
Kankakee, Beaverville & Southern
Pe
GORDON
57
312

Legend

- Survey Manhole
- Force Main
- Gravity Main
- Project Boundary
- City Limits
- Hydrology
- State Roads
- Sanitary Sewer to be Cleaned & Televised



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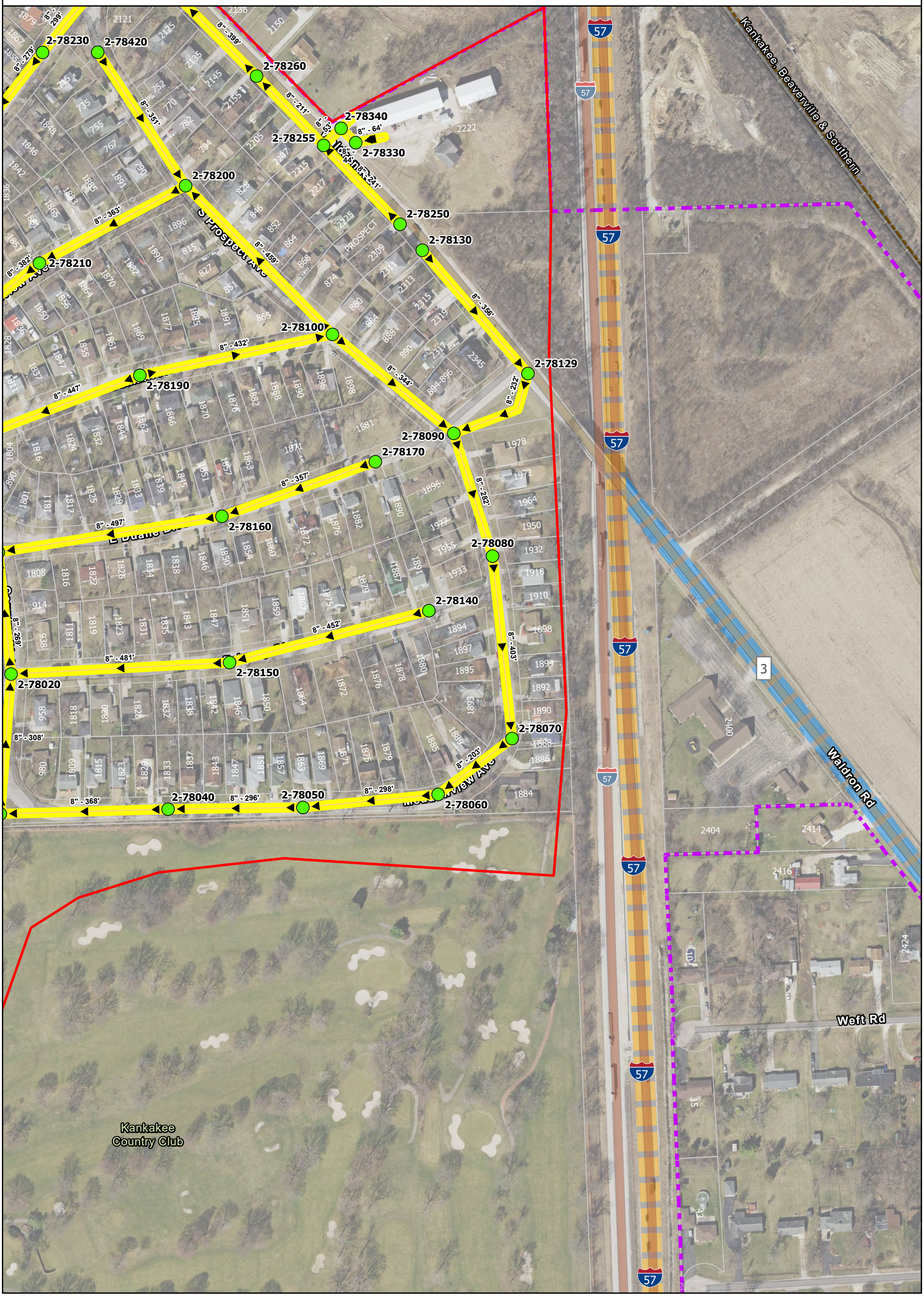
Date : 4/18/2022

City of Kankakee

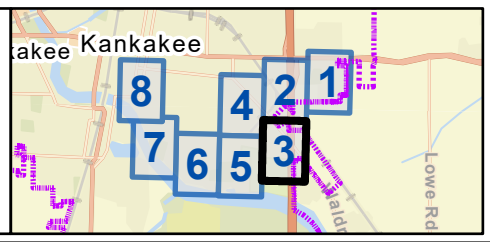
2022 Sanitary Sewer Proposed Cleaning & Televising

Project #22-R0357



Legend

- Survey Manhole
- Force Main
- Gravity Main
- Project Boundary
- City Limits
- State Roads
- County Roads
- Sanitary Sewer to be Cleaned & Televised



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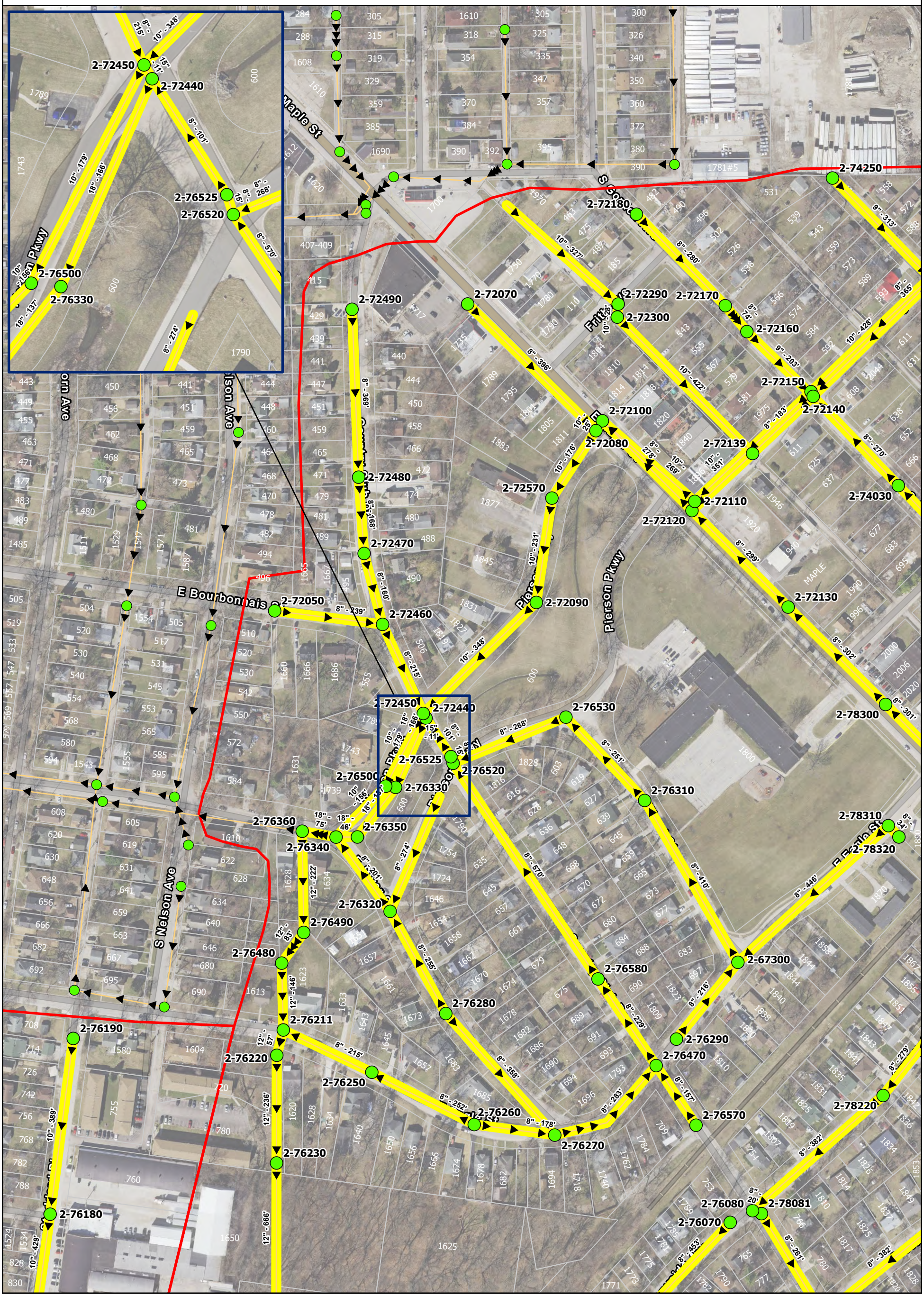
Date : 4/18/2022

City of Kankakee

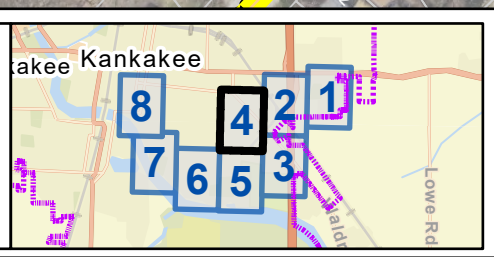
2022 Sanitary Sewer Proposed Cleaning & Televising

Project #22-R0357



Legend

- Survey Manhole
- Gravity Main
- Project Boundary
- City Limits
- Sanitary Sewer to be Cleaned & Televised



1" = 200'

Robinson ENGINEERING

M:\Kankakee\Projects\22-R0357 Lower Riverview Sanitary Sewer I_I\22-R0357 Lower Riverview Sanitary Sewer I_I.aprx

Date : 4/18/2022

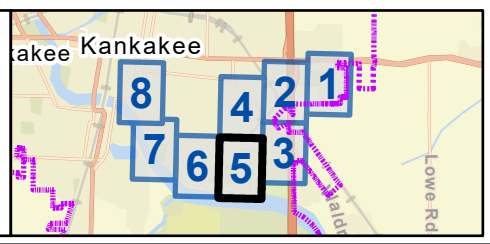
City of Kankakee

2022 Sanitary Sewer Proposed Cleaning & Televising

Project #22-R0357

Legend

- Survey Manhole
- Gravity Main
- Project Boundary
- City Limits
- Hydrology
- Sanitary Sewer to be Cleaned & Televised



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Robinson ENGINEERING

M:\Kankakee\Projects\22-R0357 Lower Riverview Sanitary Sewer I_I\22-R0357 Lower Riverview Sanitary Sewer I_I.aprx

Date : 4/18/2022

City of Kankakee

2022 Sanitary Sewer Proposed Cleaning & Televising

Project #22-R0357

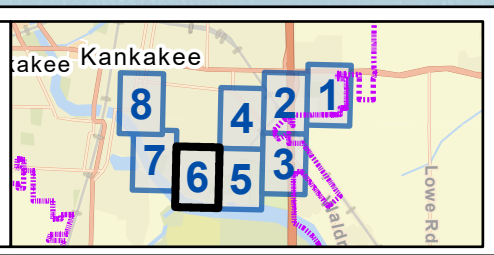
E Duane Blvd
S Elm Ave
S Myrtle Ave
E Croswell St
S Poplar Ave
S Lincoln Ave
E Emory St
S Osborn Ave
E Short St
Duane Blvd
Kankakee River
KANKAKEE RIVER/IROQUOIS RIVER

2-68241
2-68180
2-68011
2-76510
2-68250
2-68242
2-68020
2-68010
2-76450
2-76540
2-02140
2-02120
2-04240
2-04160
2-04250
2-02160
2-02130
2-02150
2-04230
2-04150
2-02050
2-02060
2-02070
2-02080
2-02075
2-02090
2-02100
2-02110
2-04140
2-04130
2-04120
2-04270

12" - 499'
10" - 620'
10" - 430'
8" - 449'
10" - 553'
10" - 109'
12" - 709'
10" - 649'
12" - 454'
12" - 438'
12" - 466'
10" - 461'
12" - 185'
12" - 494'
12" - 465'
12" - 469'
10" - 542'
8" - 192'
10" - 333'
12" - 375'
12" - 513'
12" - 450'
12" - 518'
21" - 385'
18" - 181'
18" - 187'
18" - 153'
18" - 127'
18" - 187'
18" - 193'
18" - 372'
18" - 135'
18" - 299'
18" - 46'
8" - 371'

Legend

- Survey Manhole
- Gravity Main
- Project Boundary
- City Limits
- Hydrology
- Sanitary Sewer to be Cleaned & Televised



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Robinson ENGINEERING

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Date : 4/18/2022

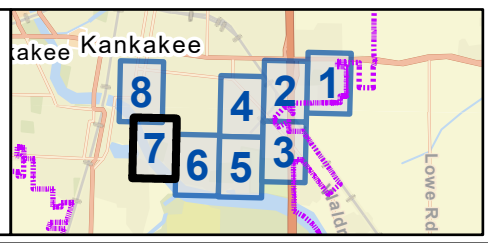
City of Kankakee

2022 Sanitary Sewer Proposed Cleaning & Televising

Project #22-R0357

Legend

- Survey Manhole
- Force Main
- Gravity Main
- Project Boundary
- City Limits
- Hydrology
- Sanitary Sewer to be Cleaned & Televised



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Robinson ENGINEERING

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Date : 4/18/2022

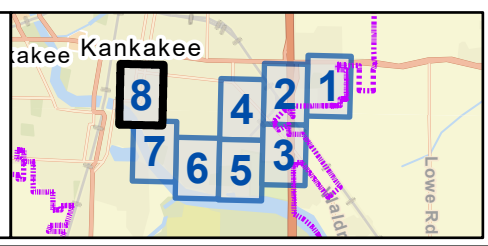
City of Kankakee

2022 Sanitary Sewer Proposed Cleaning & Televising

Project #22-R0357

Legend

- Survey Manhole
- Gravity Main
- Project Boundary
- City Limits
- Hydrology
- State Roads
- Sanitary Sewer to be Cleaned & Televised



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Robinson ENGINEERING

M:\Kankakee\Projects\22-R0357 Lower Riverview Sanitary Sewer I_3-22-R0357 Lower Riverview Sanitary Sewer I_3.aprx

Date : 4/18/2022

SUPPLEMENTAL INFORMATION

City of Kankakee
Sanitary Sewer Cleaning and Televising - Lower Riverview
Schedule - By Map Number

US MH	DS MH	NEAREST STREET	DIAMETER	PIPE ID	LENGTH (FT)	PAGE
<Null>	2-82130	MELBROOK	8	1309	50	Map 1
<Null>	2-82340	CRANBROOK	8	1318	70	Map 1
2-74220	2-74210	CRESTWOOD	10	1280	400	Map 1
2-82010	2-82020	LONGWOOD	8	1338	346	Map 1
2-82020	2-82030	LONGWOOD	8	1339	398	Map 1
2-82030	2-82041	LONGWOOD	8	1340	362	Map 1
2-82040	2-82042		Unknown	2108	14	Map 1
2-82041	2-82040	LONGWOOD	8	2164	38	Map 1
2-82042	<Null>		Unknown	2109	11	Map 1
2-82050	2-82040	LONGWOOD	8	1308	379	Map 1
2-82060	2-82050	LONGWOOD	8	1307	165	Map 1
2-82070	2-82080	OAKDALE	8	1334	399	Map 1
2-82080	2-82090	OAKDALE	8	1335	403	Map 1
2-82090	2-82111	OAKDALE	8	1336	238	Map 1
2-82100	2-82110	CRESTWOOD	10	1284	140	Map 1
2-82110	2-82040	CRESTWOOD	10	1281	307	Map 1
2-82111	2-82110	OAKDALE	8	1337	160	Map 1
2-82120	2-82121	MELBROOK	8	1313	149	Map 1
2-82121	2-82110	OAKDALE	8	1314	568	Map 1
2-82130	2-82120	MELBROOK	8	1312	233	Map 1
2-82131	2-82130	MELBROOK	8	1311	132	Map 1
2-82140	2-82141	HILLCREST	8	2158	260	Map 1
2-82141	2-82142	HILLCREST	8	1315	233	Map 1
2-82142	2-82150	HILLCREST	8	2159	52	Map 1
2-82150	2-82100	CRESTWOOD	10	1283	153	Map 1
2-82160	2-82319	HILLCREST	8	1332	331	Map 1
2-82170	2-82160	HILLCREST	8	1331	342	Map 1
2-82180	2-82222	COOPER	8	1325	228	Map 1
2-82190	2-82170	HILLCREST	8	1330	371	Map 1
2-82200	2-82210	DEVINE	8	1321	300	Map 1
2-82210	2-82290	DEVINE	8	1322	365	Map 1
2-82220	2-82310	HILLCREST	8	1328	231	Map 1
2-82221	2-82220	HILLCREST	8	1327	145	Map 1
2-82222	2-82221	COOPER	8	1326	174	Map 1

City of Kankakee
Sanitary Sewer Cleaning and Televising - Lower Riverview
Schedule - By Map Number

US MH	DS MH	NEAREST STREET	DIAMETER	PIPE ID	LENGTH (FT)	PAGE
2-82230	2-82150	CRESTWOOD	10	1282	291	Map 1
2-82240	2-82260	HILLCREST	8	1316	300	Map 1
2-82250	2-82120	MELBROOK	8	1310	108	Map 1
2-82260	2-82230	HILLCREST	8	1317	419	Map 1
2-82280	2-82290	DEVINE	8	1320	191	Map 1
2-82290	2-82230	CRESTWOOD	10	1285	306	Map 1
2-82300	2-82220	HILLCREST	8	1323	215	Map 1
2-82310	2-82230		8	1329	398	Map 1
2-82319	2-82320	HILLCREST	8	2163	42	Map 1
2-82320	2-82150	HILLCREST	8	1333	147	Map 1
2-82330	2-82222	COOPER	8	1324	344	Map 1
2-82340	2-82260	CRANBROOK	8	1319	318	Map 1
<Null>	2-74060		8	1299	95	Map 2
<Null>	2-74110	COURT	8	1286	632	Map 2
2-74010	2-74020	GORDON	8	1303	350	Map 2
2-74020	2-74030		8	1304	270	Map 2
2-74040	2-72140	ERZINGER	8	1296	366	Map 2
2-74050	2-74040	MOORE	8	1302	229	Map 2
2-74060	2-74050	MOORE	8	1301	229	Map 2
2-74070	2-74060	MOORE	8	1298	342	Map 2
2-74080	2-74040	ERZINGER	8	1297	282	Map 2
2-74090	2-74260	ERZINGER	10	1255	273	Map 2
2-74100	2-74110	COURT	8	1287	213	Map 2
2-74110	2-74120	COURT	8	1264	191	Map 2
2-74120	2-74130	COURT	8	1265	415	Map 2
2-74130	2-74140	COURT	8	1266	297	Map 2
2-74140	2-74160	RISSER	8	1267	185	Map 2
2-74150	2-74160	ERZINGER	10	1259	17	Map 2
2-74160	2-74171	ERZINGER	10	1260	75	Map 2
2-74171	2-74090	ERZINGER	10	1254	235	Map 2
2-74180	2-74150	ERZINGER	10	1258	391	Map 2
2-74190	2-74180		10	1263	250	Map 2
2-74201	2-74190	CRESTWOOD	10	1262	349	Map 2
2-74210	2-74201	CRESTWOOD	10	1261	248	Map 2

City of Kankakee
Sanitary Sewer Cleaning and Televising - Lower Riverview
Schedule - By Map Number

US MH	DS MH	NEAREST STREET	DIAMETER	PIPE ID	LENGTH (FT)	PAGE
2-74240	2-74060		8	1300	248	Map 2
2-74250	2-74040	MOORE	9	1292	313	Map 2
2-74260	2-72150	ERZINGER	10	1256	428	Map 2
2-74270	2-74100	COURT	4	1289	265	Map 2
2-74280	2-74281	CRESTWOOD	8	1275	215	Map 2
2-74281	2-74210	CRESTWOOD	8	1276	152	Map 2
2-78260	2-78270	MAPLE	8	1351	399	Map 2
2-78270	2-78230	SUNNYSIDE	8	1345	299	Map 2
2-78280	2-78270	MAPLE	8	1344	116	Map 2
2-78290	2-78300	MAPLE	8	1343	302	Map 2
<Null>	2-78330	MAPLE	8	1347	64	Map 3
<Null>	2-78340	MAPLE	8	1348	38	Map 3
2-78050	2-78040	MEADOWVIEW	8	1428	296	Map 3
2-78060	2-78050	MEADOWVIEW	8	1427	299	Map 3
2-78070	2-78060	MEADOWVIEW	8	1426	204	Map 3
2-78080	2-78070	MEADOWVIEW	8	1425	403	Map 3
2-78090	2-78080	MEADOWVIEW	8	1424	283	Map 3
2-78100	2-78090	PROSPECT	8	1423	344	Map 3
2-78100	2-78200	PROSPECT	8	1413	459	Map 3
2-78129	2-78090	DUANE	8	1431	232	Map 3
2-78130	2-78129	MAPLE	8	1430	357	Map 3
2-78140	2-78150	FAIRWAY	8	1419	453	Map 3
2-78150	2-78020	FAIRWAY	8	1420	481	Map 3
2-78170	2-78160	DUANE	8	1417	358	Map 3
2-78190	2-78100	SUMMIT	8	1416	433	Map 3
2-78200	2-78210	GREENVIEW	8	1414	364	Map 3
2-78250	2-78255	MAPLE	8	1350	241	Map 3
2-78255	2-78260	MAPLE	8	2165	212	Map 3
2-78330	2-78340	MAPLE	8	1349	45	Map 3
2-78340	2-78255	MAPLE	8	1352	54	Map 3
2-78420	2-78200	PROSPECT	8	1415	351	Map 3
<Null>	2-72290	FRITH	10	1238	328	Map 4
<Null>	2-76320	PIERSON	8	1388	274	Map 4
2-67300	2-76310	WOOD	8	1394	410	Map 4

City of Kankakee
Sanitary Sewer Cleaning and Televising - Lower Riverview
Schedule - By Map Number

US MH	DS MH	NEAREST STREET	DIAMETER	PIPE ID	LENGTH (FT)	PAGE
2-72050	2-72460	BOURBONNAIS	8	1248	239	Map 4
2-72070	2-72080	MAPLE	8	1249	396	Map 4
2-72080	2-72570	MAPLE	10	1251	177	Map 4
2-72090	2-72450	PIERSON	10	1160	348	Map 4
2-72100	2-72080	MAPLE	10	1250	26	Map 4
2-72110	2-72100	MAPLE	10	1253	269	Map 4
2-72120	2-72100	MAPLE	8	1294	279	Map 4
2-72130	2-72120	MAPLE	8	1342	299	Map 4
2-72139	2-72120	ERZINGER	8	2162	183	Map 4
2-72140	2-72139	ERZINGER	8	1295	183	Map 4
2-72150	2-72110	ERZINGER	10	1257	351	Map 4
2-72160	2-72140		9	1293	204	Map 4
2-72170	2-72160		8	1291	74	Map 4
2-72180	2-72170	GORDON	8	1290	280	Map 4
2-72290	2-72300		10	1239	29	Map 4
2-72300	2-72139	FRITH	10	1306	422	Map 4
2-72440	2-76330	PIERSON	18	1155	166	Map 4
2-72450	2-72440		15	1158	12	Map 4
2-72450	2-76500	PIERSON	10	1159	180	Map 4
2-72460	2-72450	COUNTRY CLUB	8	1247	215	Map 4
2-72470	2-72460	COUNTRY CLUB	8	1246	161	Map 4
2-72480	2-72470	COUNTRY CLUB	8	1245	168	Map 4
2-72490	2-72480	COUNTRY CLUB	8	1244	369	Map 4
2-72570	2-72090	PIERSON	10	1252	232	Map 4
2-74030	2-72140	GORDON	8	1305	271	Map 4
2-76070	2-76060	SUNNYSIDE	8	1403	453	Map 4
2-76080	2-78081		8	1407	21	Map 4
2-76180	2-76170	STODDARD	10	1537	429	Map 4
2-76190	2-76180	STODDARD	10	1536	390	Map 4
2-76211	2-76220	EAGLE	12	1355	57	Map 4
2-76220	2-76230	EAGLE	12	1356	237	Map 4
2-76230	2-76120	DUANE	12	1357	667	Map 4
2-76250	2-76211	EAGLE	8	2166	216	Map 4
2-76260	2-76250	EAGLE	8	1378	253	Map 4

City of Kankakee
Sanitary Sewer Cleaning and Televising - Lower Riverview
Schedule - By Map Number

US MH	DS MH	NEAREST STREET	DIAMETER	PIPE ID	LENGTH (FT)	PAGE
2-76260	2-76270	EAGLE	8	1379	179	Map 4
2-76270	2-76470	EAGLE	8	1380	284	Map 4
2-76280	2-76270	RIVER	8	1382	359	Map 4
2-76280	2-76320	RIVER	8	1390	256	Map 4
2-76290	2-67300	EAGLE	8	1393	216	Map 4
2-76310	2-76530	WOOD	8	1395	252	Map 4
2-76320	2-76340	RIVER	8	1389	202	Map 4
2-76330	2-76350	PIERSON	18	2160	138	Map 4
2-76340	2-76360	RIVER	18	1153	76	Map 4
2-76350	2-76340	PIERSON	18	1152	47	Map 4
2-76360	2-76490		12	1364	222	Map 4
2-76470	2-76580	COUNTRY CLUB	8	1384	229	Map 4
2-76480	2-76211	EAGLE	12	1354	147	Map 4
2-76490	2-76480	EAGLE	12	1353	83	Map 4
2-76500	2-76340	PIERSON	10	2161	156	Map 4
2-76520	2-76525		8	1386	15	Map 4
2-76525	2-72440	PIERSON	8	1387	101	Map 4
2-76530	2-76520	PIERSON	8	1396	268	Map 4
2-76570	2-76470	COUNTRY CLUB	8	1383	158	Map 4
2-76580	2-76520	COUNTRY CLUB	8	1385	571	Map 4
2-78081	2-76090	COUNTRY CLUB	8	1408	262	Map 4
2-78210	2-76090	GREENVIEW	8	1411	382	Map 4
2-78220	2-76080	SUNNYSIDE	8	1406	383	Map 4
2-78230	2-78220	SUNNYSIDE	8	1346	280	Map 4
2-78300	2-72130	MAPLE	8	1341	303	Map 4
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2-78320	2-78310	EAGLE	8	1391	34	Map 4
<Null>	2-04200	CHATHAM	10	1368	135	Map 5
<Null>	2-04260	CROSWELL	8	1542	75	Map 5
<Null>	2-76140	EMORY	8	1376	172	Map 5
2-04020	2-04030	JUSTINE	12	1361	347	Map 5
2-04030	2-04040	JUSTINE	12	1362	352	Map 5
2-04040	2-04180	JUSTINE	12	1363	350	Map 5
2-04050	2-04190	COBB	12	1365	407	Map 5

City of Kankakee
Sanitary Sewer Cleaning and Televising - Lower Riverview
Schedule - By Map Number

US MH	DS MH	NEAREST STREET	DIAMETER	PIPE ID	LENGTH (FT)	PAGE
2-04060	2-04200	CHATHAM	6	1367	201	Map 5
2-04070	2-04080	CHATHAM	8	1370	340	Map 5
2-04080	2-04090	CHATHAM	8	1372	202	Map 5
2-04090	2-04190	CHATHAM	8	1371	459	Map 5
2-04100	2-04110	COBB	18	1520	92	Map 5
2-04170	2-04280	COBB	18	1516	59	Map 5
2-04175	2-04285	COBB	18	1518	17	Map 5
2-04180	2-04170	COBB	18	1515	159	Map 5
2-04190	2-04180	COBB	12	1366	173	Map 5
2-04200	2-04050	CHATHAM	10	1369	628	Map 5
2-04280	2-04175	COBB	18	1517	202	Map 5
2-04285	2-04100	COBB	18	1519	110	Map 5
2-04290	2-04291	CROSWELL	8	1541	9	Map 5
2-04291	2-04260	CROSWELL	8	1544	94	Map 5
2-04300	2-04290	CROSWELL	8	1540	143	Map 5
2-76010	2-04020	JUSTINE	12	1360	211	Map 5
2-76020	2-76010	JUSTINE	12	1359	500	Map 5
2-76030	2-76020	DUANE	10	1402	271	Map 5
2-76040	2-76030	DUANE	10	1401	64	Map 5
2-76050	2-76040		10	1400	77	Map 5
2-76060	2-76050	SUNNYSIDE	8	1404	204	Map 5
2-76090	2-78180	COUNTRY CLUB	8	1409	193	Map 5
2-76100	2-76110	GREENVIEW	8	1405	360	Map 5
2-76110	2-76050	DUANE	10	1399	286	Map 5
2-76120	2-76020	DUANE	12	1358	237	Map 5
2-76130	2-76140	EMORY	8	1377	424	Map 5
2-76140	2-76150	EMORY	8	1373	230	Map 5
2-76150	2-76160	EMORY	8	1374	100	Map 5
2-76160	2-76010	JUSTINE	8	1375	202	Map 5
2-76590	2-76110	DUANE	10	1398	257	Map 5
2-78010	2-76590	DUANE	10	1397	263	Map 5
2-78020	2-78010	COUNTRY CLUB	8	1421	269	Map 5
2-78030	2-78020	COUNTRY CLUB	8	1422	308	Map 5
2-78040	2-78030	MEADOWVIEW	8	1429	369	Map 5

City of Kankakee
Sanitary Sewer Cleaning and Televising - Lower Riverview
Schedule - By Map Number

US MH	DS MH	NEAREST STREET	DIAMETER	PIPE ID	LENGTH (FT)	PAGE
2-78160	2-78010	DUANE	8	1418	498	Map 5
2-78180	2-78010	COUNTRY CLUB	8	1410	254	Map 5
2-78190	2-78180	SUMMIT	8	1412	447	Map 5
<Null>	2-68250	MYRTLE	12	1504	499	Map 6
<Null>	2-76510	OSBORN	10	1534	109	Map 6
2-02050	2-02040		21	1484	385	Map 6
2-02060	2-02050	COBB	18	1514	182	Map 6
2-02070	2-02060	COBB	18	1513	187	Map 6
2-02080	2-02070	COBB	18	1512	287	Map 6
2-02090	2-02075	COBB	18	1510	127	Map 6
2-02100	2-02090	COBB	18	1509	187	Map 6
2-02110	2-02100	COBB	18	1525	193	Map 6
2-02120	2-02150	POPLAR	12	1530	465	Map 6
2-02130	2-02070	ELM	12	1551	375	Map 6
2-02140	2-02130	ELM	12	1528	494	Map 6
2-02150	2-02090	POPLAR	12	1550	514	Map 6
2-02160	2-02050	MYRTLE	10	1547	334	Map 6
2-04020	2-02080	COBB	18	1511	154	Map 6
2-04110	2-04120	COBB	18	1521	299	Map 6
2-04120	2-04130	COBB	18	1522	47	Map 6
2-04130	2-04140	COBB	18	1523	136	Map 6
2-04140	2-02110	COBB	18	1524	372	Map 6
2-04150	2-04140	OSBORN	12	1548	519	Map 6
2-04160	2-04250	NELSON	12	2172	13	Map 6
2-04230	2-02110	OSBORN	12	1549	451	Map 6
2-04240	2-04230	OSBORN	12	1532	470	Map 6
2-04250	2-04150	NELSON	12	1545	360	Map 6
2-04260	2-04160	CROSWELL	8	1543	193	Map 6
2-04270	2-04120	COBB	8	1546	371	Map 6
2-68010	2-02120	POPLAR	12	1529	439	Map 6
2-68011	2-68010	POPLAR	8	1531	450	Map 6
2-68020	2-02140	ELM	12	1527	455	Map 6
2-68180	2-68020	ELM	10	1526	430	Map 6
2-68241	2-68242	MYRTLE	10	1507	620	Map 6

City of Kankakee
Sanitary Sewer Cleaning and Televising - Lower Riverview
Schedule - By Map Number

US MH	DS MH	NEAREST STREET	DIAMETER	PIPE ID	LENGTH (FT)	PAGE
2-68242	2-02160	MYRTLE	10	1508	650	Map 6
2-68250	2-02040	MYRTLE	12	1505	710	Map 6
2-68250	2-02040	MYRTLE	12	1506	186	Map 6
2-76170	2-76540	NELSON	10	1538	542	Map 6
2-76450	2-04240	OSBORN	12	1533	466	Map 6
2-76510	2-76450	OSBORN	10	1535	553	Map 6
2-76540	2-04160	NELSON	10	1539	462	Map 6
<Null>	2-68041		Unknown	2131	38	Map 7
<Null>	2-68169		Unknown	2140	538	Map 7
2-02010	2-68070	COBB	21	1489	261	Map 7
2-02020	2-02010	COBB	21	1488	38	Map 7
2-02030	2-02020	COBB	21	1487	25	Map 7
2-02040	2-04210	COBB	21	1485	332	Map 7
2-04210	2-02030	COBB	21	1486	203	Map 7
2-66010	2-66040	CHICAGO	24	1468	253	Map 7
2-66020	2-66010	CHICAGO	21	2170	203	Map 7
2-66030	2-66020	CHICAGO	21	1483	240	Map 7
2-66040	2-6604A	HARRISON	24	1466	84	Map 7
2-66080	2-66040		8	1476	39	Map 7
2-66390	2-66080	HARRISON	8	1475	327	Map 7
2-68030	2-04210	WILDWOOD	12	1552	838	Map 7
2-68040	2-68042		10	1502	68	Map 7
2-68041	2-68040	WILDWOOD	10	1501	633	Map 7
2-68042	2-68030	WILDWOOD	12	1503	413	Map 7
2-68050	2-68052	COBB	10	1494	215	Map 7
2-68052	2-68053	COBB	10	2171	209	Map 7
2-68053	2-68060	COBB	10	1495	419	Map 7
2-68060	2-68120	EMORY	10	1496	415	Map 7
2-68070	2-68080	COBB	21	1490	281	Map 7
2-68080	2-68090	COBB	21	1491	319	Map 7
2-68090	2-68100	COBB	21	1492	157	Map 7
2-68100	2-68110	CHICAGO	21	1493	278	Map 7
2-68110	2-66030	CHICAGO	21	1482	345	Map 7
2-68119	2-68120	GREENWOOD	12	1497	343	Map 7

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US MH	DS MH	NEAREST STREET	DIAMETER	PIPE ID	LENGTH (FT)	PAGE
2-68120	2-68110	CHICAGO	12	1554	394	Map 7
2-68130	2-66010	PARK	15	1555	406	Map 7
2-68131	2-68130	CHICAGO	8	1481	654	Map 7
2-68140	2-68150		Unknown	2130	177	Map 7
2-68141	2-68140		Unknown	2152	18	Map 7
2-68150	2-68110	CHICAGO	8	1500	163	Map 7
2-68169	2-68170		Unknown	2142	209	Map 7
2-68170	2-68130	PARK	15	1478	394	Map 7
2-68172	2-68170	GREENWOOD	10	1479	778	Map 7
2-68250	2-02040	MYRTLE	12	1553	46	Map 7
2-62010	2-6201A	RIVER	24	2153	189	Map 8
2-62011	2-62010	INDIANA	10	1469	263	Map 8
2-62020	2-66380	HARRISON	8	1471	168	Map 8
2-62030	2-66240	CHICAGO	8	1473	295	Map 8
2-6604A	2-66050	HARRISON	24	2169	25	Map 8
2-66050	2-66060	HARRISON	24	1467	184	Map 8
2-66060	2-66070	HARRISON	24	1464	168	Map 8
2-66060	2-66257	HARRISON	24	2167	65	Map 8
2-66070	2-6607A	INDIANA	24	2168	82	Map 8
2-6607A	2-62010	INDIANA	24	1465	245	Map 8
2-66240	2-66390	HARRISON	8	1474	262	Map 8
2-66250	2-6607A	INDIANA	10	1470	55	Map 8
2-66259	2-66258	HARRISON	8	2155	192	Map 8
2-66260	2-66259	HARRISON	8	2157	127	Map 8
2-66380	2-66260	HARRISON	8	2156	82	Map 8
2-68171	2-68172	GREENWOOD	10	2154	41	Map 8

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US MH	DS MH	NEAREST STREET	DIAMETER	PIPE ID	LENGTH (FT)	PAGE
2-02010	2-68070	COBB	21	1489	261	Map 7
2-02020	2-02010	COBB	21	1488	38	Map 7
2-02030	2-02020	COBB	21	1487	25	Map 7
2-02040	2-04210	COBB	21	1485	332	Map 7
2-02050	2-02040		21	1484	385	Map 6
2-02060	2-02050	COBB	18	1514	182	Map 6
2-02070	2-02060	COBB	18	1513	187	Map 6
2-02080	2-02070	COBB	18	1512	287	Map 6
2-02090	2-02075	COBB	18	1510	127	Map 6
2-02100	2-02090	COBB	18	1509	187	Map 6
2-02110	2-02100	COBB	18	1525	193	Map 6
2-02120	2-02150	POPLAR	12	1530	465	Map 6
2-02130	2-02070	ELM	12	1551	375	Map 6
2-02140	2-02130	ELM	12	1528	494	Map 6
2-02150	2-02090	POPLAR	12	1550	514	Map 6
2-02160	2-02050	MYRTLE	10	1547	334	Map 6
2-04020	2-02080	COBB	18	1511	154	Map 6
2-04020	2-04030	JUSTINE	12	1361	347	Map 5
2-04030	2-04040	JUSTINE	12	1362	352	Map 5
2-04040	2-04180	JUSTINE	12	1363	350	Map 5
2-04050	2-04190	COBB	12	1365	407	Map 5
2-04060	2-04200	CHATHAM	6	1367	201	Map 5
2-04070	2-04080	CHATHAM	8	1370	340	Map 5
2-04080	2-04090	CHATHAM	8	1372	202	Map 5
2-04090	2-04190	CHATHAM	8	1371	459	Map 5
2-04100	2-04110	COBB	18	1520	92	Map 5
2-04110	2-04120	COBB	18	1521	299	Map 6
2-04120	2-04130	COBB	18	1522	47	Map 6
2-04130	2-04140	COBB	18	1523	136	Map 6
2-04140	2-02110	COBB	18	1524	372	Map 6
2-04150	2-04140	OSBORN	12	1548	519	Map 6
2-04160	2-04250	NELSON	12	2172	13	Map 6
2-04170	2-04280	COBB	18	1516	59	Map 5
2-04175	2-04285	COBB	18	1518	17	Map 5

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US MH	DS MH	NEAREST STREET	DIAMETER	PIPE ID	LENGTH (FT)	PAGE
2-04180	2-04170	COBB	18	1515	159	Map 5
2-04190	2-04180	COBB	12	1366	173	Map 5
2-04200	2-04050	CHATHAM	10	1369	628	Map 5
2-04210	2-02030	COBB	21	1486	203	Map 7
2-04230	2-02110	OSBORN	12	1549	451	Map 6
2-04240	2-04230	OSBORN	12	1532	470	Map 6
2-04250	2-04150	NELSON	12	1545	360	Map 6
2-04260	2-04160	CROSWELL	8	1543	193	Map 6
2-04270	2-04120	COBB	8	1546	371	Map 6
2-04280	2-04175	COBB	18	1517	202	Map 5
2-04285	2-04100	COBB	18	1519	110	Map 5
2-04290	2-04291	CROSWELL	8	1541	9	Map 5
2-04291	2-04260	CROSWELL	8	1544	94	Map 5
2-04300	2-04290	CROSWELL	8	1540	143	Map 5
2-62010	2-6201A	RIVER	24	2153	189	Map 8
2-62011	2-62010	INDIANA	10	1469	263	Map 8
2-62020	2-66380	HARRISON	8	1471	168	Map 8
2-62030	2-66240	CHICAGO	8	1473	295	Map 8
2-66010	2-66040	CHICAGO	24	1468	253	Map 7
2-66020	2-66010	CHICAGO	21	2170	203	Map 7
2-66030	2-66020	CHICAGO	21	1483	240	Map 7
2-66040	2-6604A	HARRISON	24	1466	84	Map 7
2-6604A	2-66050	HARRISON	24	2169	25	Map 8
2-66050	2-66060	HARRISON	24	1467	184	Map 8
2-66060	2-66070	HARRISON	24	1464	168	Map 8
2-66060	2-66257	HARRISON	24	2167	65	Map 8
2-66070	2-6607A	INDIANA	24	2168	82	Map 8
2-6607A	2-62010	INDIANA	24	1465	245	Map 8
2-66080	2-66040		8	1476	39	Map 7
2-66240	2-66390	HARRISON	8	1474	262	Map 8
2-66250	2-6607A	INDIANA	10	1470	55	Map 8
2-66259	2-66258	HARRISON	8	2155	192	Map 8
2-66260	2-66259	HARRISON	8	2157	127	Map 8
2-66380	2-66260	HARRISON	8	2156	82	Map 8

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US MH	DS MH	NEAREST STREET	DIAMETER	PIPE ID	LENGTH (FT)	PAGE
2-66390	2-66080	HARRISON	8	1475	327	Map 7
2-67300	2-76310	WOOD	8	1394	410	Map 4
2-68010	2-02120	POPLAR	12	1529	439	Map 6
2-68011	2-68010	POPLAR	8	1531	450	Map 6
2-68020	2-02140	ELM	12	1527	455	Map 6
2-68030	2-04210	WILDWOOD	12	1552	838	Map 7
2-68040	2-68042		10	1502	68	Map 7
2-68041	2-68040	WILDWOOD	10	1501	633	Map 7
2-68042	2-68030	WILDWOOD	12	1503	413	Map 7
2-68050	2-68052	COBB	10	1494	215	Map 7
2-68052	2-68053	COBB	10	2171	209	Map 7
2-68053	2-68060	COBB	10	1495	419	Map 7
2-68060	2-68120	EMORY	10	1496	415	Map 7
2-68070	2-68080	COBB	21	1490	281	Map 7
2-68080	2-68090	COBB	21	1491	319	Map 7
2-68090	2-68100	COBB	21	1492	157	Map 7
2-68100	2-68110	CHICAGO	21	1493	278	Map 7
2-68110	2-66030	CHICAGO	21	1482	345	Map 7
2-68119	2-68120	GREENWOOD	12	1497	343	Map 7
2-68120	2-68110	CHICAGO	12	1554	394	Map 7
2-68130	2-66010	PARK	15	1555	406	Map 7
2-68131	2-68130	CHICAGO	8	1481	654	Map 7
2-68140	2-68150		Unknown	2130	177	Map 7
2-68141	2-68140		Unknown	2152	18	Map 7
2-68150	2-68110	CHICAGO	8	1500	163	Map 7
2-68169	2-68170		Unknown	2142	209	Map 7
2-68170	2-68130	PARK	15	1478	394	Map 7
2-68171	2-68172	GREENWOOD	10	2154	41	Map 8
2-68172	2-68170	GREENWOOD	10	1479	778	Map 7
2-68180	2-68020	ELM	10	1526	430	Map 6
2-68241	2-68242	MYRTLE	10	1507	620	Map 6
2-68242	2-02160	MYRTLE	10	1508	650	Map 6
2-68250	2-02040	MYRTLE	12	1505	710	Map 6
2-68250	2-02040	MYRTLE	12	1506	186	Map 6

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US MH	DS MH	NEAREST STREET	DIAMETER	PIPE ID	LENGTH (FT)	PAGE
2-68250	2-02040	MYRTLE	12	1553	46	Map 7
2-72050	2-72460	BOURBONNAIS	8	1248	239	Map 4
2-72070	2-72080	MAPLE	8	1249	396	Map 4
2-72080	2-72570	MAPLE	10	1251	177	Map 4
2-72090	2-72450	PIERSON	10	1160	348	Map 4
2-72100	2-72080	MAPLE	10	1250	26	Map 4
2-72110	2-72100	MAPLE	10	1253	269	Map 4
2-72120	2-72100	MAPLE	8	1294	279	Map 4
2-72130	2-72120	MAPLE	8	1342	299	Map 4
2-72139	2-72120	ERZINGER	8	2162	183	Map 4
2-72140	2-72139	ERZINGER	8	1295	183	Map 4
2-72150	2-72110	ERZINGER	10	1257	351	Map 4
2-72160	2-72140		9	1293	204	Map 4
2-72170	2-72160		8	1291	74	Map 4
2-72180	2-72170	GORDON	8	1290	280	Map 4
2-72290	2-72300		10	1239	29	Map 4
2-72300	2-72139	FRITH	10	1306	422	Map 4
2-72440	2-76330	PIERSON	18	1155	166	Map 4
2-72450	2-72440		15	1158	12	Map 4
2-72450	2-76500	PIERSON	10	1159	180	Map 4
2-72460	2-72450	COUNTRY CLUB	8	1247	215	Map 4
2-72470	2-72460	COUNTRY CLUB	8	1246	161	Map 4
2-72480	2-72470	COUNTRY CLUB	8	1245	168	Map 4
2-72490	2-72480	COUNTRY CLUB	8	1244	369	Map 4
2-72570	2-72090	PIERSON	10	1252	232	Map 4
2-74010	2-74020	GORDON	8	1303	350	Map 2
2-74020	2-74030		8	1304	270	Map 2
2-74030	2-72140	GORDON	8	1305	271	Map 4
2-74040	2-72140	ERZINGER	8	1296	366	Map 2
2-74050	2-74040	MOORE	8	1302	229	Map 2
2-74060	2-74050	MOORE	8	1301	229	Map 2
2-74070	2-74060	MOORE	8	1298	342	Map 2
2-74080	2-74040	ERZINGER	8	1297	282	Map 2
2-74090	2-74260	ERZINGER	10	1255	273	Map 2

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US MH	DS MH	NEAREST STREET	DIAMETER	PIPE ID	LENGTH (FT)	PAGE
2-74100	2-74110	COURT	8	1287	213	Map 2
2-74110	2-74120	COURT	8	1264	191	Map 2
2-74120	2-74130	COURT	8	1265	415	Map 2
2-74130	2-74140	COURT	8	1266	297	Map 2
2-74140	2-74160	RISSER	8	1267	185	Map 2
2-74150	2-74160	ERZINGER	10	1259	17	Map 2
2-74160	2-74171	ERZINGER	10	1260	75	Map 2
2-74171	2-74090	ERZINGER	10	1254	235	Map 2
2-74180	2-74150	ERZINGER	10	1258	391	Map 2
2-74190	2-74180		10	1263	250	Map 2
2-74201	2-74190	CRESTWOOD	10	1262	349	Map 2
2-74210	2-74201	CRESTWOOD	10	1261	248	Map 2
2-74220	2-74210	CRESTWOOD	10	1280	400	Map 1
2-74240	2-74060		8	1300	248	Map 2
2-74250	2-74040	MOORE	9	1292	313	Map 2
2-74260	2-72150	ERZINGER	10	1256	428	Map 2
2-74270	2-74100	COURT	4	1289	265	Map 2
2-74280	2-74281	CRESTWOOD	8	1275	215	Map 2
2-74281	2-74210	CRESTWOOD	8	1276	152	Map 2
2-76010	2-04020	JUSTINE	12	1360	211	Map 5
2-76020	2-76010	JUSTINE	12	1359	500	Map 5
2-76030	2-76020	DUANE	10	1402	271	Map 5
2-76040	2-76030	DUANE	10	1401	64	Map 5
2-76050	2-76040		10	1400	77	Map 5
2-76060	2-76050	SUNNYSIDE	8	1404	204	Map 5
2-76070	2-76060	SUNNYSIDE	8	1403	453	Map 4
2-76080	2-78081		8	1407	21	Map 4
2-76090	2-78180	COUNTRY CLUB	8	1409	193	Map 5
2-76100	2-76110	GREENVIEW	8	1405	360	Map 5
2-76110	2-76050	DUANE	10	1399	286	Map 5
2-76120	2-76020	DUANE	12	1358	237	Map 5
2-76130	2-76140	EMORY	8	1377	424	Map 5
2-76140	2-76150	EMORY	8	1373	230	Map 5
2-76150	2-76160	EMORY	8	1374	100	Map 5

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US MH	DS MH	NEAREST STREET	DIAMETER	PIPE ID	LENGTH (FT)	PAGE
2-76160	2-76010	JUSTINE	8	1375	202	Map 5
2-76170	2-76540	NELSON	10	1538	542	Map 6
2-76180	2-76170	STODDARD	10	1537	429	Map 4
2-76190	2-76180	STODDARD	10	1536	390	Map 4
2-76211	2-76220	EAGLE	12	1355	57	Map 4
2-76220	2-76230	EAGLE	12	1356	237	Map 4
2-76230	2-76120	DUANE	12	1357	667	Map 4
2-76250	2-76211	EAGLE	8	2166	216	Map 4
2-76260	2-76250	EAGLE	8	1378	253	Map 4
2-76260	2-76270	EAGLE	8	1379	179	Map 4
2-76270	2-76470	EAGLE	8	1380	284	Map 4
2-76280	2-76270	RIVER	8	1382	359	Map 4
2-76280	2-76320	RIVER	8	1390	256	Map 4
2-76290	2-67300	EAGLE	8	1393	216	Map 4
2-76310	2-76530	WOOD	8	1395	252	Map 4
2-76320	2-76340	RIVER	8	1389	202	Map 4
2-76330	2-76350	PIERSON	18	2160	138	Map 4
2-76340	2-76360	RIVER	18	1153	76	Map 4
2-76350	2-76340	PIERSON	18	1152	47	Map 4
2-76360	2-76490		12	1364	222	Map 4
2-76450	2-04240	OSBORN	12	1533	466	Map 6
2-76470	2-76580	COUNTRY CLUB	8	1384	229	Map 4
2-76480	2-76211	EAGLE	12	1354	147	Map 4
2-76490	2-76480	EAGLE	12	1353	83	Map 4
2-76500	2-76340	PIERSON	10	2161	156	Map 4
2-76510	2-76450	OSBORN	10	1535	553	Map 6
2-76520	2-76525		8	1386	15	Map 4
2-76525	2-72440	PIERSON	8	1387	101	Map 4
2-76530	2-76520	PIERSON	8	1396	268	Map 4
2-76540	2-04160	NELSON	10	1539	462	Map 6
2-76570	2-76470	COUNTRY CLUB	8	1383	158	Map 4
2-76580	2-76520	COUNTRY CLUB	8	1385	571	Map 4
2-76590	2-76110	DUANE	10	1398	257	Map 5
2-78010	2-76590	DUANE	10	1397	263	Map 5

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US MH	DS MH	NEAREST STREET	DIAMETER	PIPE ID	LENGTH (FT)	PAGE
2-78020	2-78010	COUNTRY CLUB	8	1421	269	Map 5
2-78030	2-78020	COUNTRY CLUB	8	1422	308	Map 5
2-78040	2-78030	MEADOWVIEW	8	1429	369	Map 5
2-78050	2-78040	MEADOWVIEW	8	1428	296	Map 3
2-78060	2-78050	MEADOWVIEW	8	1427	299	Map 3
2-78070	2-78060	MEADOWVIEW	8	1426	204	Map 3
2-78080	2-78070	MEADOWVIEW	8	1425	403	Map 3
2-78081	2-76090	COUNTRY CLUB	8	1408	262	Map 4
2-78090	2-78080	MEADOWVIEW	8	1424	283	Map 3
2-78100	2-78090	PROSPECT	8	1423	344	Map 3
2-78100	2-78200	PROSPECT	8	1413	459	Map 3
2-78129	2-78090	DUANE	8	1431	232	Map 3
2-78130	2-78129	MAPLE	8	1430	357	Map 3
2-78140	2-78150	FAIRWAY	8	1419	453	Map 3
2-78150	2-78020	FAIRWAY	8	1420	481	Map 3
2-78160	2-78010	DUANE	8	1418	498	Map 5
2-78170	2-78160	DUANE	8	1417	358	Map 3
2-78180	2-78010	COUNTRY CLUB	8	1410	254	Map 5
2-78190	2-78100	SUMMIT	8	1416	433	Map 3
2-78190	2-78180	SUMMIT	8	1412	447	Map 5
2-78200	2-78210	GREENVIEW	8	1414	364	Map 3
2-78210	2-76090	GREENVIEW	8	1411	382	Map 4
2-78220	2-76080	SUNNYSIDE	8	1406	383	Map 4
2-78230	2-78220	SUNNYSIDE	8	1346	280	Map 4
2-78250	2-78255	MAPLE	8	1350	241	Map 3
2-78255	2-78260	MAPLE	8	2165	212	Map 3
2-78260	2-78270	MAPLE	8	1351	399	Map 2
2-78270	2-78230	SUNNYSIDE	8	1345	299	Map 2
2-78280	2-78270	MAPLE	8	1344	116	Map 2
2-78290	2-78300	MAPLE	8	1343	302	Map 2
2-78300	2-72130	MAPLE	8	1341	303	Map 4
2-78310	2-67300	EAGLE	8	1392	447	Map 4
2-78320	2-78310	EAGLE	8	1391	34	Map 4
2-78330	2-78340	MAPLE	8	1349	45	Map 3

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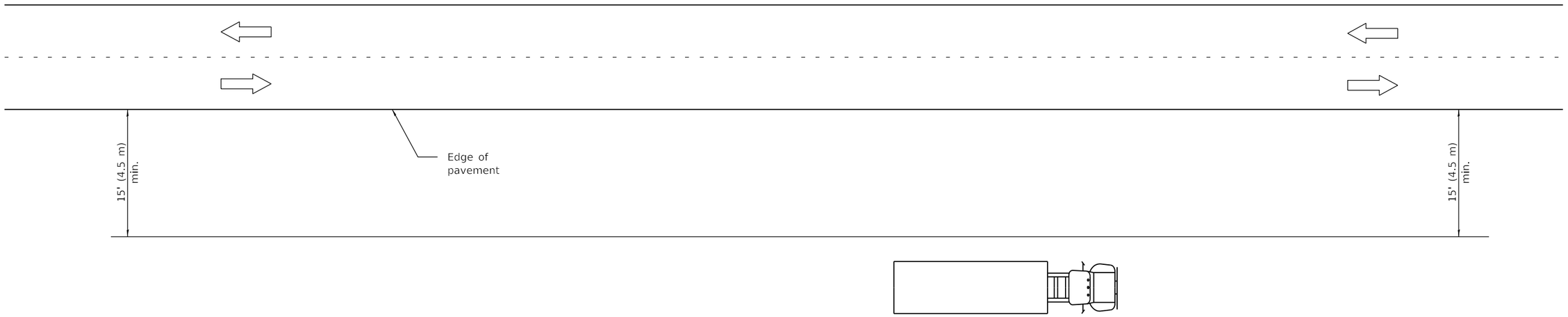
US MH	DS MH	NEAREST STREET	DIAMETER	PIPE ID	LENGTH (FT)	PAGE
2-78340	2-78255	MAPLE	8	1352	54	Map 3
2-78420	2-78200	PROSPECT	8	1415	351	Map 3
2-82010	2-82020	LONGWOOD	8	1338	346	Map 1
2-82020	2-82030	LONGWOOD	8	1339	398	Map 1
2-82030	2-82041	LONGWOOD	8	1340	362	Map 1
2-82040	2-82042		Unknown	2108	14	Map 1
2-82041	2-82040	LONGWOOD	8	2164	38	Map 1
2-82042	<Null>		Unknown	2109	11	Map 1
2-82050	2-82040	LONGWOOD	8	1308	379	Map 1
2-82060	2-82050	LONGWOOD	8	1307	165	Map 1
2-82070	2-82080	OAKDALE	8	1334	399	Map 1
2-82080	2-82090	OAKDALE	8	1335	403	Map 1
2-82090	2-82111	OAKDALE	8	1336	238	Map 1
2-82100	2-82110	CRESTWOOD	10	1284	140	Map 1
2-82110	2-82040	CRESTWOOD	10	1281	307	Map 1
2-82111	2-82110	OAKDALE	8	1337	160	Map 1
2-82120	2-82121	MELBROOK	8	1313	149	Map 1
2-82121	2-82110	OAKDALE	8	1314	568	Map 1
2-82130	2-82120	MELBROOK	8	1312	233	Map 1
2-82131	2-82130	MELBROOK	8	1311	132	Map 1
2-82140	2-82141	HILLCREST	8	2158	260	Map 1
2-82141	2-82142	HILLCREST	8	1315	233	Map 1
2-82142	2-82150	HILLCREST	8	2159	52	Map 1
2-82150	2-82100	CRESTWOOD	10	1283	153	Map 1
2-82160	2-82319	HILLCREST	8	1332	331	Map 1
2-82170	2-82160	HILLCREST	8	1331	342	Map 1
2-82180	2-82222	COOPER	8	1325	228	Map 1
2-82190	2-82170	HILLCREST	8	1330	371	Map 1
2-82200	2-82210	DEVINE	8	1321	300	Map 1
2-82210	2-82290	DEVINE	8	1322	365	Map 1
2-82220	2-82310	HILLCREST	8	1328	231	Map 1
2-82221	2-82220	HILLCREST	8	1327	145	Map 1
2-82222	2-82221	COOPER	8	1326	174	Map 1
2-82230	2-82150	CRESTWOOD	10	1282	291	Map 1

City of Kankakee
Sanitary Sewer Cleaning and Televising - Lower Riverview
Schedule - By US MH Number

US MH	DS MH	NEAREST STREET	DIAMETER	PIPE ID	LENGTH (FT)	PAGE
2-82240	2-82260	HILLCREST	8	1316	300	Map 1
2-82250	2-82120	MELBROOK	8	1310	108	Map 1
2-82260	2-82230	HILLCREST	8	1317	419	Map 1
2-82280	2-82290	DEVINE	8	1320	191	Map 1
2-82290	2-82230	CRESTWOOD	10	1285	306	Map 1
2-82300	2-82220	HILLCREST	8	1323	215	Map 1
2-82310	2-82230		8	1329	398	Map 1
2-82319	2-82320	HILLCREST	8	2163	42	Map 1
2-82320	2-82150	HILLCREST	8	1333	147	Map 1
2-82330	2-82222	COOPER	8	1324	344	Map 1
2-82340	2-82260	CRANBROOK	8	1319	318	Map 1
<Null>	2-04200	CHATHAM	10	1368	135	Map 5
<Null>	2-04260	CROSWELL	8	1542	75	Map 5
<Null>	2-68041		Unknown	2131	38	Map 7
<Null>	2-68169		Unknown	2140	538	Map 7
<Null>	2-68250	MYRTLE	12	1504	499	Map 6
<Null>	2-72290	FRITH	10	1238	328	Map 4
<Null>	2-74060		8	1299	95	Map 2
<Null>	2-74110	COURT	8	1286	632	Map 2
<Null>	2-76140	EMORY	8	1376	172	Map 5
<Null>	2-76320	PIERSON	8	1388	274	Map 4
<Null>	2-76510	OSBORN	10	1534	109	Map 6
<Null>	2-78330	MAPLE	8	1347	64	Map 3
<Null>	2-78340	MAPLE	8	1348	38	Map 3
<Null>	2-82130	MELBROOK	8	1309	50	Map 1
<Null>	2-82340	CRANBROOK	8	1318	70	Map 1

STANDARD DRAWINGS



TYPICAL APPLICATIONS

Landscaping work

Utility work

Fencing contracts and maintenance

Cleaning culverts

GENERAL NOTES

This Standard is used where at all times all vehicles, equipment, workers or their activities are more than 15' (4.5 m) from the edge of pavement.

When the work operation requires that two or more work vehicles cross the 15' (4.5 m) clear zone in any one hour, traffic control shall be according to Standard 701006.

All dimensions are in inches (millimeters) unless otherwise shown.

Illinois Department of Transportation

PASSED January 1, 2009

ENGINEER OF OPERATIONS

APPROVED January 1, 2009

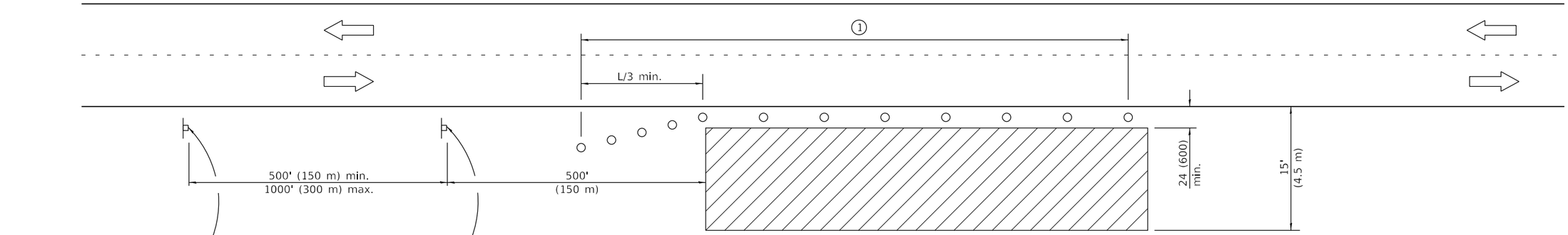
ENGINEER OF DESIGN AND ENVIRONMENT

ISSUED 1-1-97

DATE	REVISIONS
1-1-09	Switched units to
	English (metric).
1-1-05	Revised title and notes.

OFF-RD OPERATIONS, 2L, 2W, MORE THAN 15' (4.5 m) AWAY

STANDARD 701001-02



For contract construction projects

W20-I103(0)-48

W21-1(0)-48

For maintenance and utility projects

W20-1(0)-48

TYPICAL APPLICATIONS

Utility operations
Culvert extensions
Side slope changes
Guardrail installation and maintenance
Delineator installation
Landscaping operations
Shoulder repair
Sign installation and maintenance

SYMBOLS

Work area

Sign

Cone, drum or barricade

① When the work operation exceeds one hour, cones, drums or barricades shall be placed at 25' (8 m) centers for L/3 distance, and at 50' (15 m) centers through the remainder of the work area.

GENERAL NOTES

This Standard is used where any vehicles, equipment, workers or their activities will encroach in the area 15' (4.5 m) to 24 (600) from the edge of pavement.

Calculate L as follows:

SPEED LIMIT	FORMULAS English	FORMULAS (Metric)
40 mph (70 km/h) or less:	$L=\frac{WS^2}{60}$	$L=\frac{WS^2}{150}$
45 mph (80 km/h) or greater:	L=(W)(S)	L=0.65(W)(S)

W = Width of offset in feet (meters).

S = Normal posted speed mph (km/h).

All dimensions are in inches (millimeters) unless otherwise shown.

Illinois Department of Transportation

PASSED January 1. 2014
ENGINEER OF SAFETY ENGINEERING

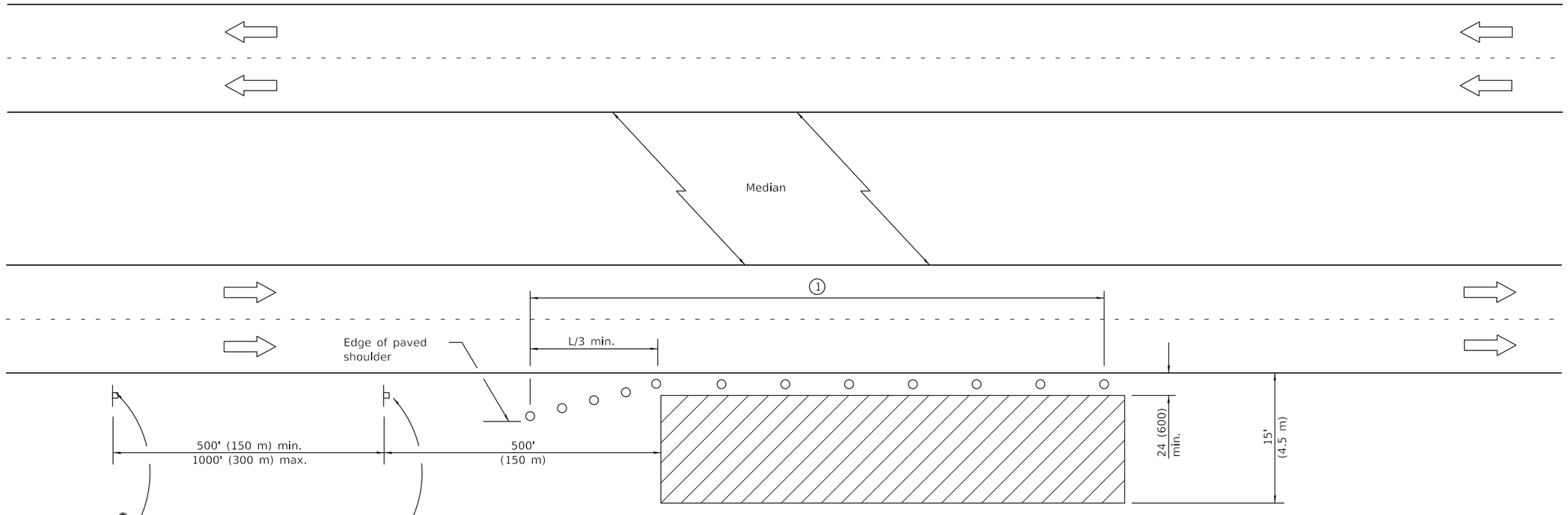
APPROVED January 1. 2014
ENGINEER OF DESIGN AND ENVIRONMENT

ISSUED 1-1-97

DATE	REVISIONS
1-1-14	Revised workers sign
	number to agree with
	current MUTCD.
1-1-13	Omitted text 'WORKERS'
	sign.

OFF-RD OPERATIONS, 2L, 2W, 15' (4.5 m) TO 24" (600 mm) FROM PAVEMENT EDGE

STANDARD 701006-05



For contract construction projects

W20-I103(0)-48

W21-1(0)-48

For maintenance and utility projects

W20-1(0)-48

TYPICAL APPLICATIONS

Utility operations
Culvert extensions
Side slope changes
Guardrail installation and maintenance
Delineator installation
Landscaping operations
Shoulder repair
Sign installation and maintenance

SYMBOLS

Work area

Sign

Cone, drum or barricade

① When the work operation exceeds one hour, cones, drums or barricades shall be placed at 25' (8 m) centers for L/3 distance, and at 50' (15 m) centers through the remainder of the work area.

GENERAL NOTES

This Standard is used where any vehicles, equipment, workers or their activities will encroach in the area 15' (4.5 m) to 24 (600) from the edge of pavement.

Calculate L as follows:

SPEED LIMIT	FORMULAS	
	English	(Metric)
40 mph (70 km/h) or less:	$L=\frac{WS^2}{60}$	$L=\frac{WS^2}{150}$
45 mph (80 km/h) or greater:	L=(W)(S)	L=0.65(W)(S)

W = Width of offset in feet (meters).

S = Normal posted speed mph (km/h).

All dimensions are in inches (millimeters) unless otherwise shown.

Illinois Department of Transportation

PASSED April 1, 2016
ENGINEER OF SAFETY ENGINEERING

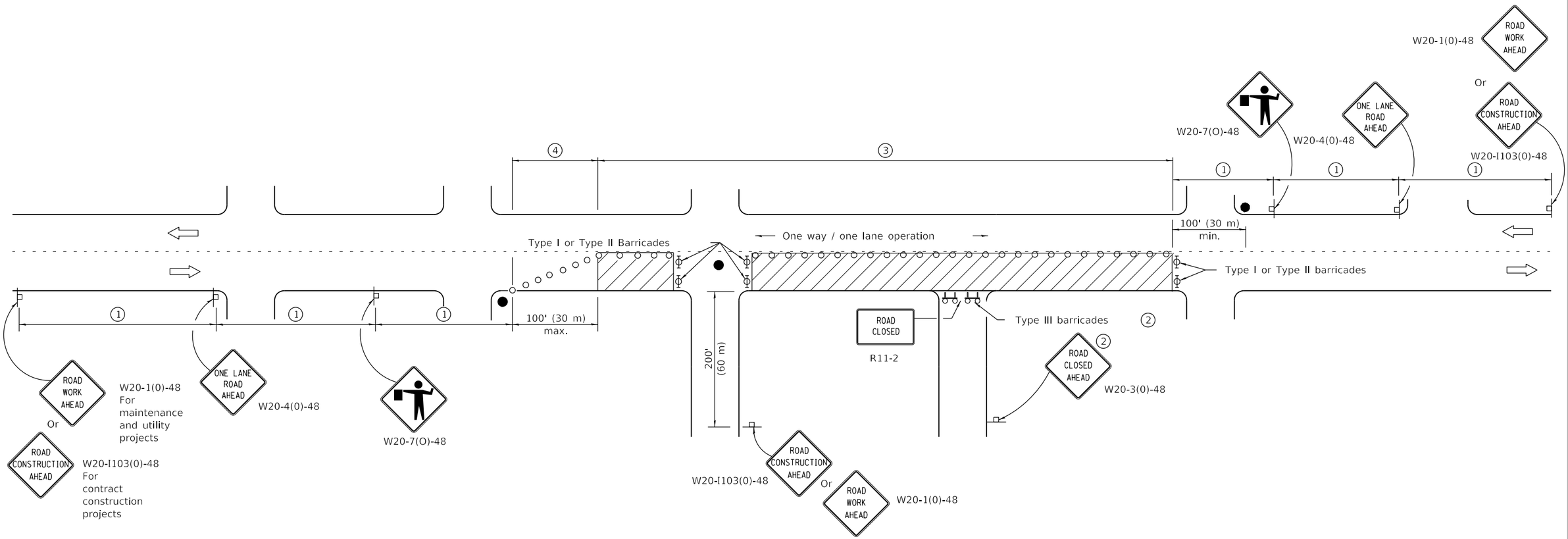
APPROVED April 1, 2016
ENGINEER OF DESIGN AND ENVIRONMENT

ISSUED 1-1-97

DATE	REVISIONS
4-1-16	Corrected typo in title.
1-1-14	Revised workers sign
	number to agree with
	current MUTCD.

OFF-RD OPERATIONS, MULTILANE, 15' (4.5 m) TO 24" (600 mm) FROM PAVEMENT EDGE

STANDARD 701101-05



SIGN SPACING	
Posted Speed	Sign Spacing
55	500' (150 m)
50-45	350' (100 m)
<45	200' (60 m)

SYMBOLS

- Work area
- Cone, drum or barricade (not required for moving operations)
- Sign on portable or permanent support
- Flagger with traffic control sign
- Barricade or drum with flashing light
- Type III barricade with flashing lights

1. Refer to SIGN SPACING TABLE for distances.
2. For approved sideroad closures.
3. Cones at 25' (8 m) centers for 250' (75 m). Additional cones may be placed at 50' (15 m) centers. When drums or Type I or Type II barricades are used. the interval between devices may be doubled.
4. Cones, drums or barricades at 20' (6 m) centers.

GENERAL NOTES

This Standard is used where at any time, day or night, any vehicle, equipment, workers or their activities encroach on the pavement requiring the closure of one traffic lane in an urban area.

All dimensions are in inches (millimeters) unless otherwise shown.

Illinois Department of Transportation

PASSED January 1, 2011
ENGINEER OF SAFETY ENGINEERING

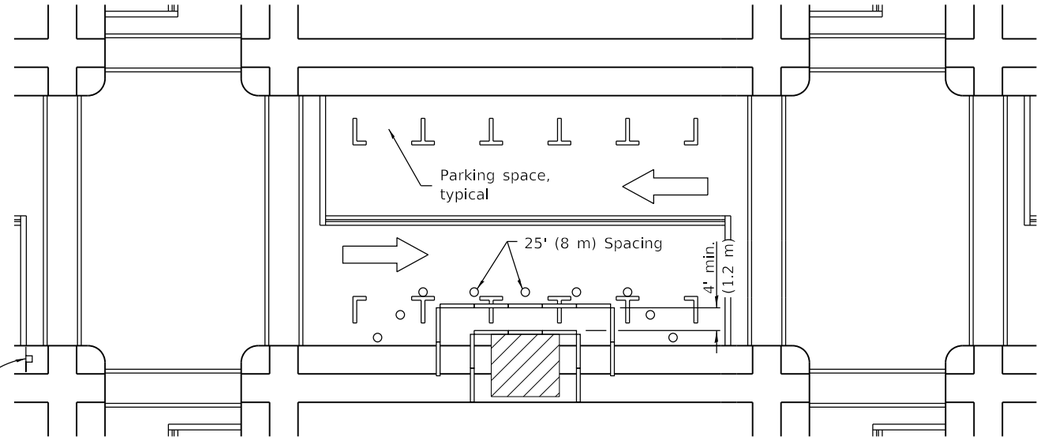
APPROVED January 1, 2011
ENGINEER OF DESIGN AND ENVIRONMENT

ISSUED 1-1-97

DATE	REVISIONS
1-1-11	Revised flagger sign.
1-1-09	Switched units to
	English (metric).
	Corrected sign No.'s.

URBAN LANE CLOSURE, 2L, 2W, UNDIVIDED

STANDARD 701501-06



① ROAD CONSTRUCTION AHEAD

W20-I103(0)-48 for contract construction projects

Or

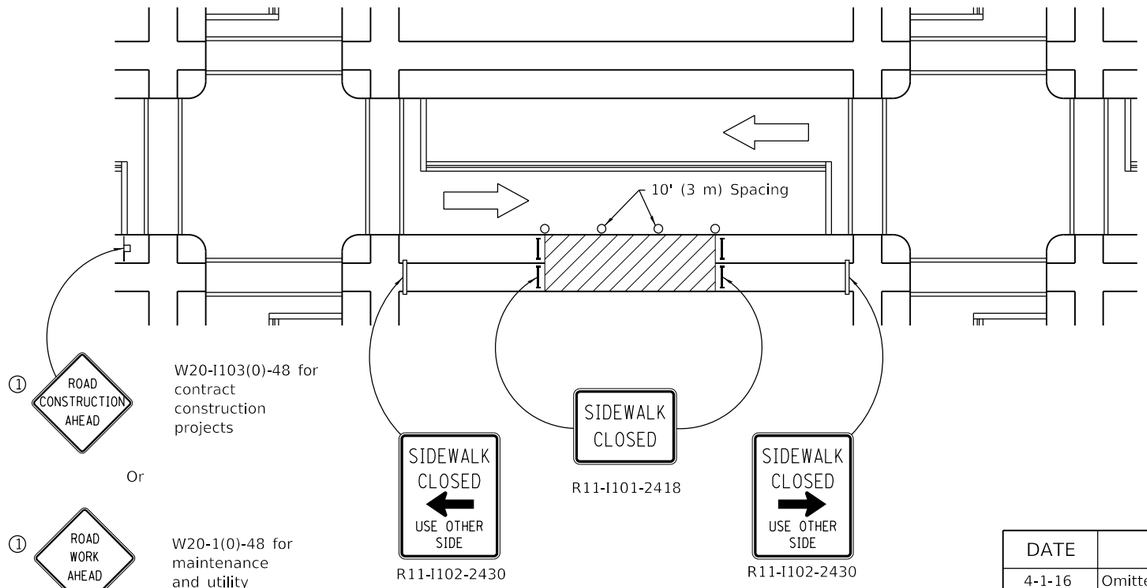
① ROAD WORK AHEAD

W20-1(0)-48 for maintenance and utility projects

SIDEWALK DIVERSION

SYMBOLS

- Work area
- Sign on portable or permanent support
- Barricade or drum
- Cone, drum or barricade
- Type III barricade
- Detectable pedestrian channelizing barricade



① ROAD CONSTRUCTION AHEAD

W20-I103(0)-48 for contract construction projects

Or

① ROAD WORK AHEAD

W20-1(0)-48 for maintenance and utility projects

SIDEWALK CLOSURE

① Omit whenever duplicated by road work traffic control.

GENERAL NOTES

This Standard is used where, at any time, pedestrian traffic must be rerouted due to work being performed.

This Standard must be used in conjunction with other Traffic Control & Protection Standards when roadway traffic is affected.

Temporary facilities shall be detectable and accessible.

The temporary pedestrian facilities shall be provided on the same side of the closed facilities whenever possible.

The SIDEWALK CLOSED / USE OTHER SIDE sign shall be placed at the nearest crosswalk or intersection to each end of the closure. Where the closure occurs at a corner, the signs shall be erected on the corners across the street from the closure. The SIDEWALK CLOSED signs shall be used at the ends of the actual closures.

Type III barricades and R11-2-4830 signs shall be positioned as shown in "ROAD CLOSED TO ALL TRAFFIC" detail on Standard 701901.

All dimensions are in inches (millimeters) unless otherwise shown.

Illinois Department of Transportation

PASSED April 1, 2016
ENGINEER OF SAFETY ENGINEERING

APPROVED April 1, 2016
ENGINEER OF DESIGN AND ENVIRONMENT

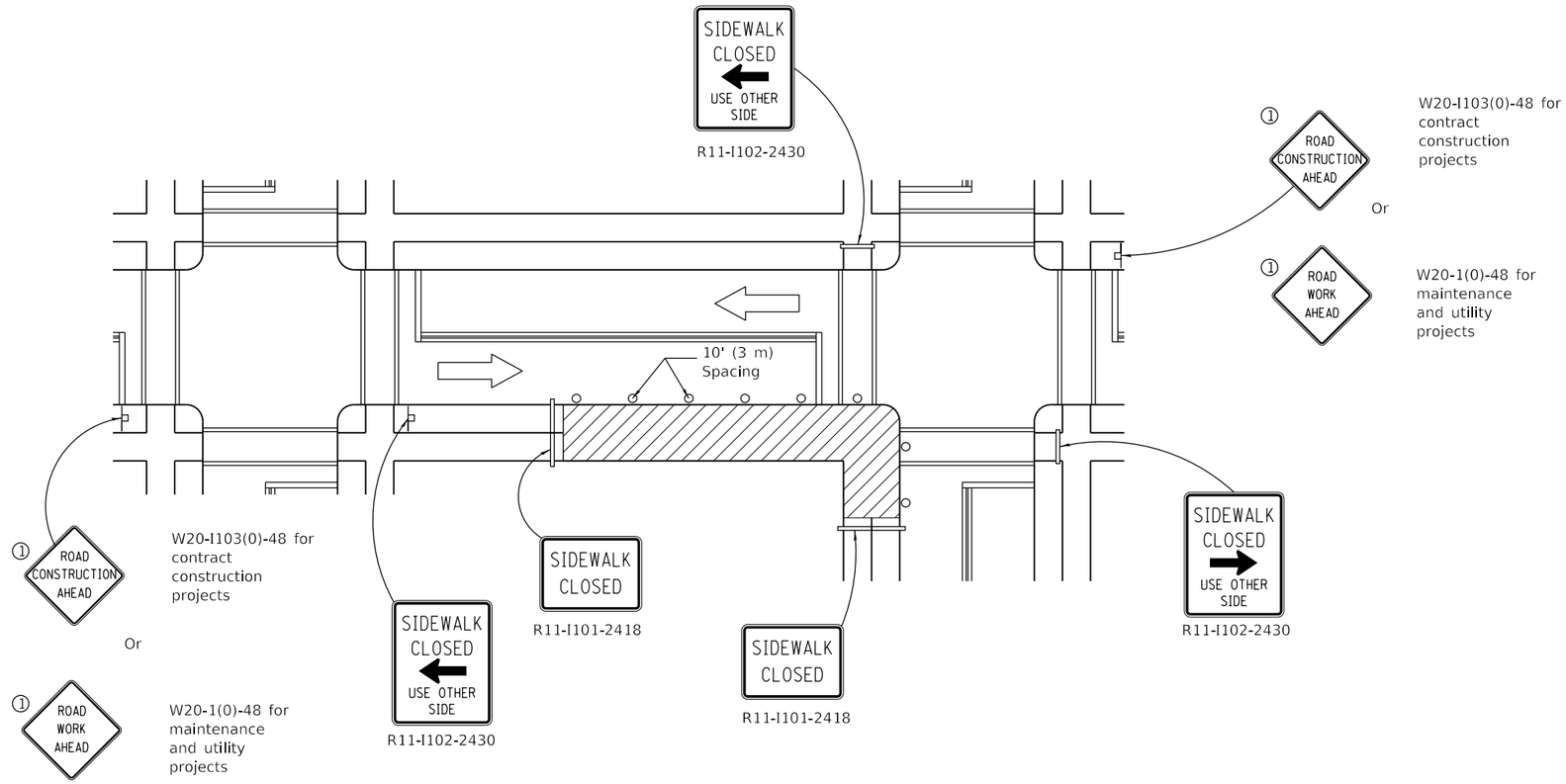
ISSUED 1-1-97

DATE	REVISIONS
4-1-16	Omitted orange safety fence
	from standard as this is
	covered in the std. spec.
1-1-12	Added SIDEWALK DIVERSION.
	Modified appearance of
	plan views. Renamed Std.

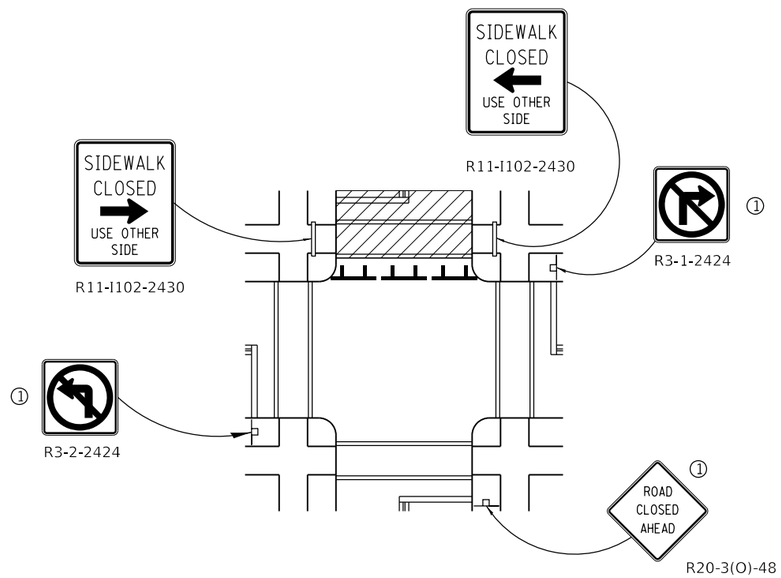
SIDEWALK, CORNER OR CROSSWALK CLOSURE

(Sheet 1 of 2)

STANDARD 701801-06



CORNER CLOSURE



CROSSWALK CLOSURE

Illinois Department of Transportation

PASSED April 1, 2016
ENGINEER OF SAFETY ENGINEERING

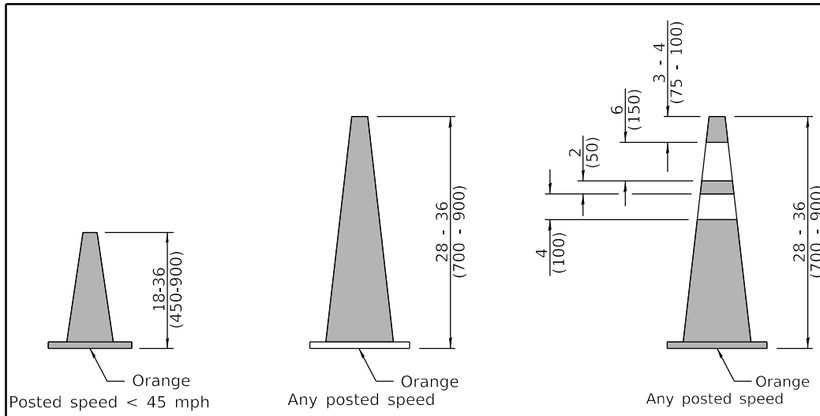
APPROVED April 1, 2016
ENGINEER OF DESIGN AND ENVIRONMENT

ISSUED 1-1-97

SIDEWALK, CORNER OR CROSSWALK CLOSURE

(Sheet 2 of 2)

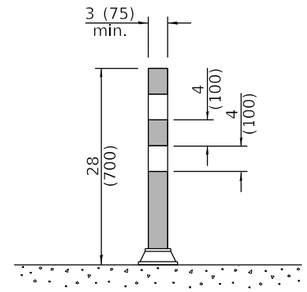
STANDARD 701801-06



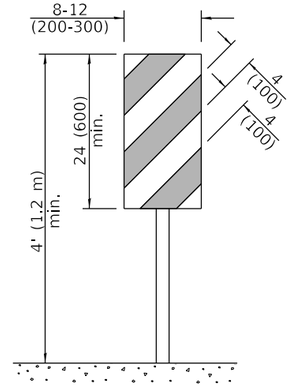
DAYTIME USE

DAY OR NIGHTTIME USE

CONES

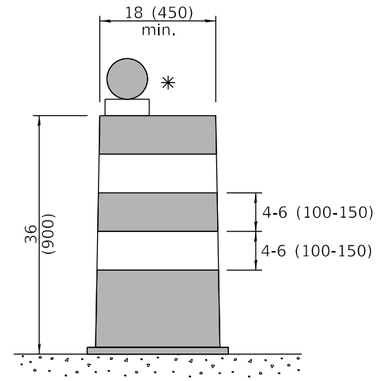


TUBULAR MARKER

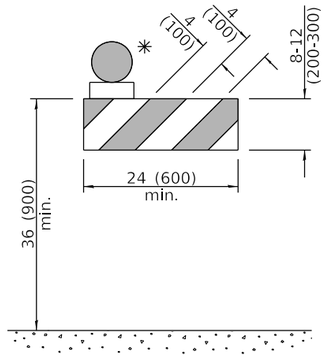


VERTICAL PANEL

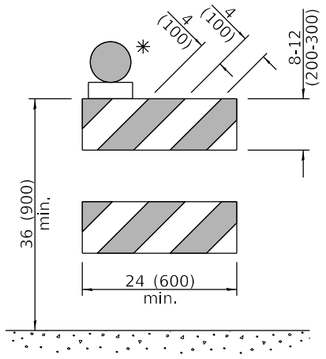
POST MOUNTED



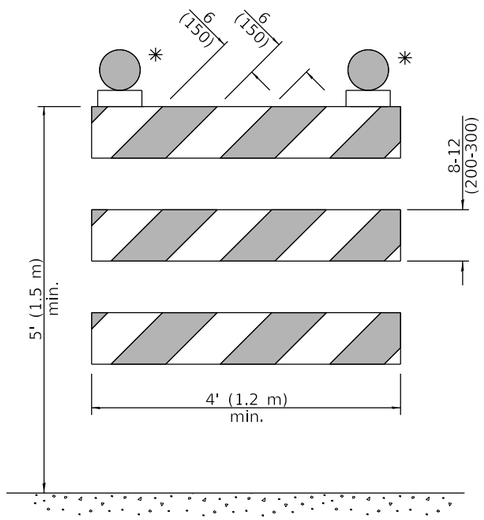
DRUM



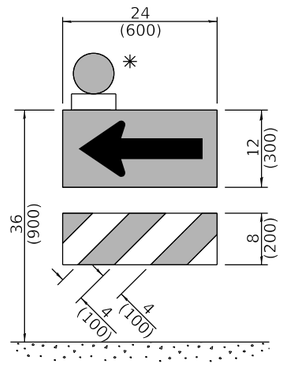
TYPE I BARRICADE



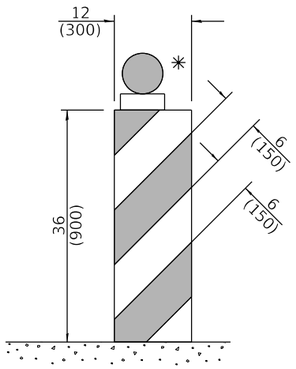
TYPE II BARRICADE



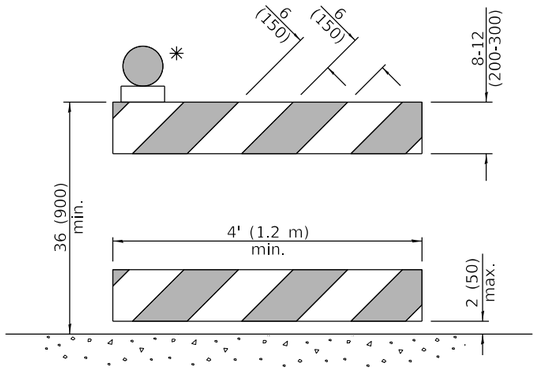
TYPE III BARRICADE



DIRECTION INDICATOR BARRICADE



VERTICAL BARRICADE



DETECTABLE PEDESTRIAN CHANNELIZING BARRICADE

✳ Warning lights (if required)

GENERAL NOTES

All heights shown shall be measured above the pavement surface.

All dimensions are in inches (millimeters) unless otherwise shown.

Illinois Department of Transportation

APPROVED January 1, 2019
ENGINEER OF SAFETY PROG. AND ENGINEERING

APPROVED January 1, 2019
ENGINEER OF DESIGN AND ENVIRONMENT

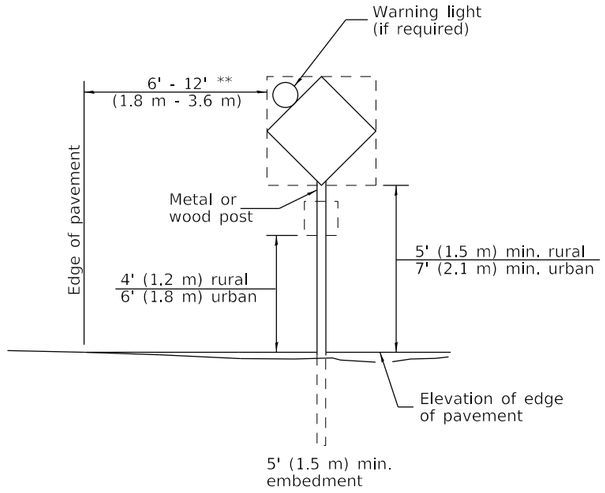
ISSUED 1-1-13

DATE	REVISIONS
1-1-19	Revised cone usage and
	added cones >36" (900 m) height.
1-1-18	Revised END WORK ZONE
	SPEED LIMIT sign from
	orange to white background.

TRAFFIC CONTROL DEVICES

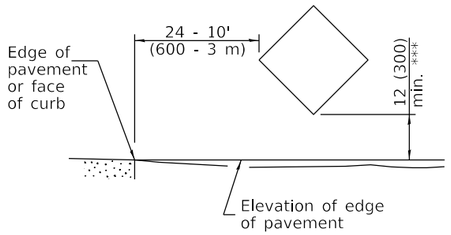
(Sheet 1 of 3)

STANDARD 701901-08



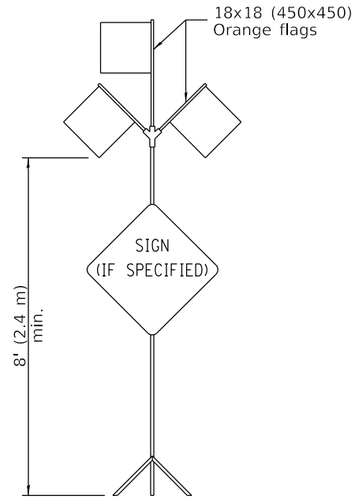
POST MOUNTED SIGNS

** When curb or paved shoulder are present this dimension shall be 24 (600) to the face of curb or 6' (1.8 m) to the outside edge of the paved shoulder.



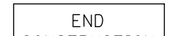
SIGNS ON TEMPORARY SUPPORTS

*** When work operations exceed four days, this dimension shall be 5' (1.5 m) min. If located behind other devices, the height shall be sufficient to be seen completely above the devices.



HIGH LEVEL WARNING DEVICE

G20-I104(0)-6036



G20-I105(0)-6024

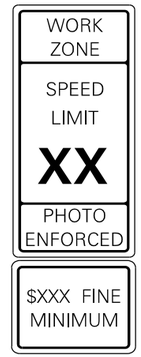
This signing is required for all projects 2 miles (3200 m) or more in length.

ROAD CONSTRUCTION NEXT X MILES sign shall be placed 500' (150 m) in advance of project limits.

END CONSTRUCTION sign shall be erected at the end of the job unless another job is within 2 miles (3200 m).

Dual sign displays shall be utilized on multi-lane highways.

WORK LIMIT SIGNING



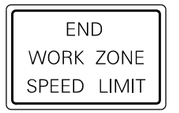
W21-III5(0)-3618

R2-1-3648

R10-I108p-3618 ****

R2-I106p-3618

Sign assembly as shown on Standards or as allowed by District Operations.

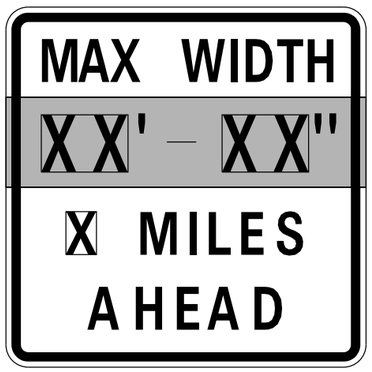


G20-I103-6036

This sign shall be used when the above sign assembly is used.

HIGHWAY CONSTRUCTION SPEED ZONE SIGNS

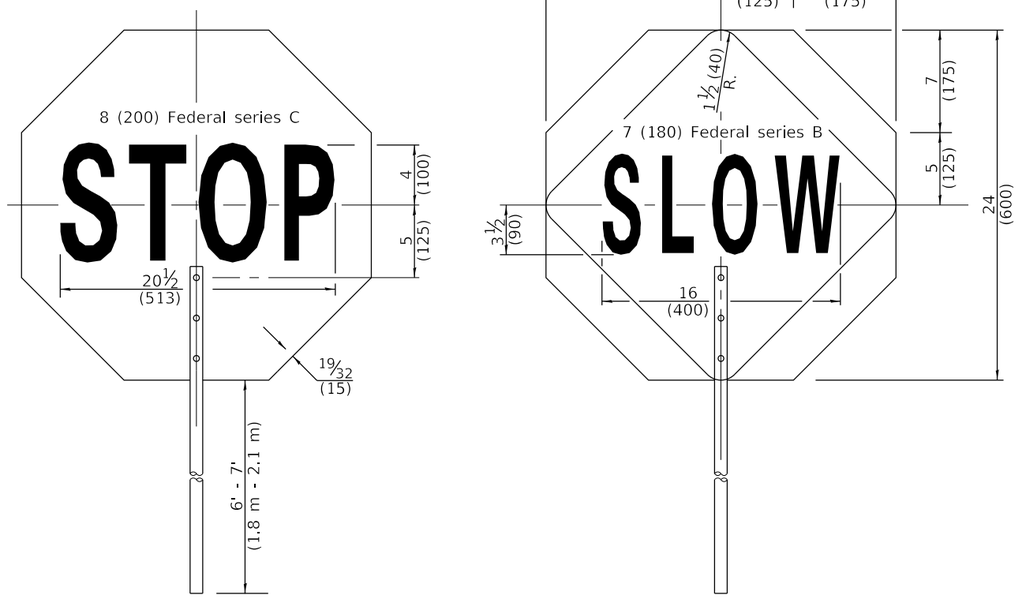
**** R10-I108p shall only be used along roadways under the juristiction of the State.



W12-I103-4848

WIDTH RESTRICTION SIGN

XX'-XX" width and X miles are variable.



FLAGGER TRAFFIC CONTROL SIGN

Illinois Department of Transportation

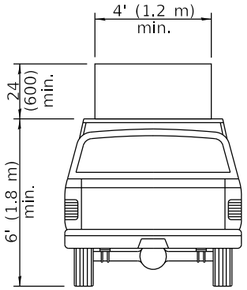
APPROVED January 1, 2019
ENGINEER OF SAFETY PROG. AND ENGINEERING

APPROVED January 1, 2019
ENGINEER OF DESIGN AND ENVIRONMENT

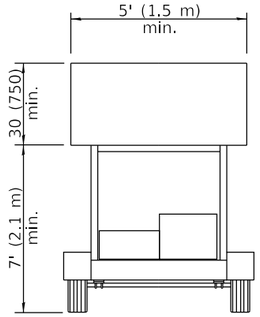
ISSUED 1-1-13

TRAFFIC CONTROL DEVICES

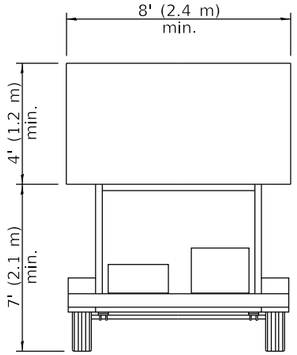
STANDARD 701901-08



**TYPE A
ROOF
MOUNTED**

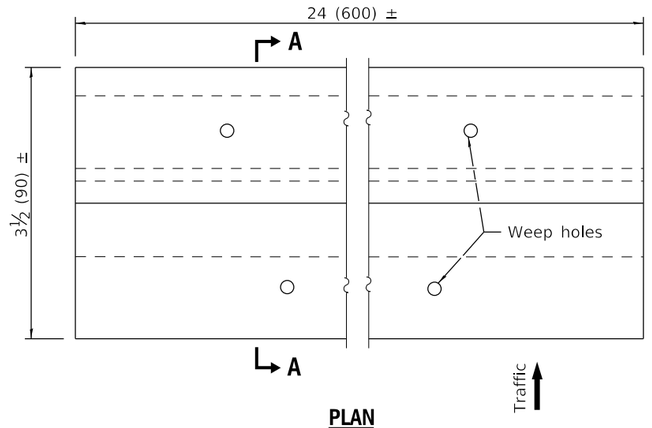


**TYPE B
ROOF OR TRAILER
MOUNTED**

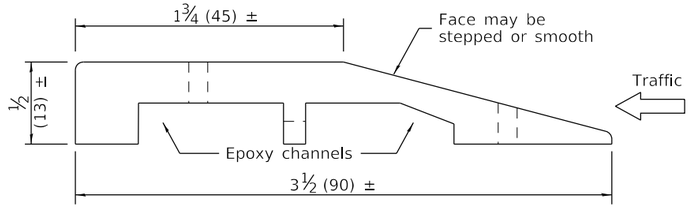


**TYPE C
TRAILER
MOUNTED**

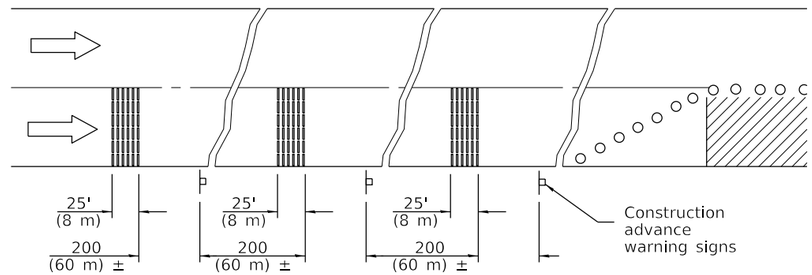
ARROW BOARDS

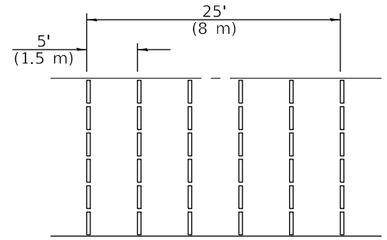


PLAN



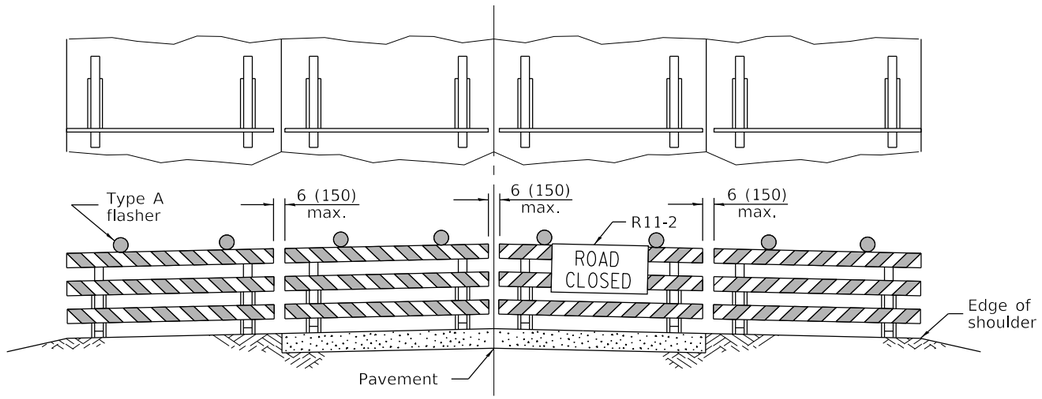
SECTION A-A





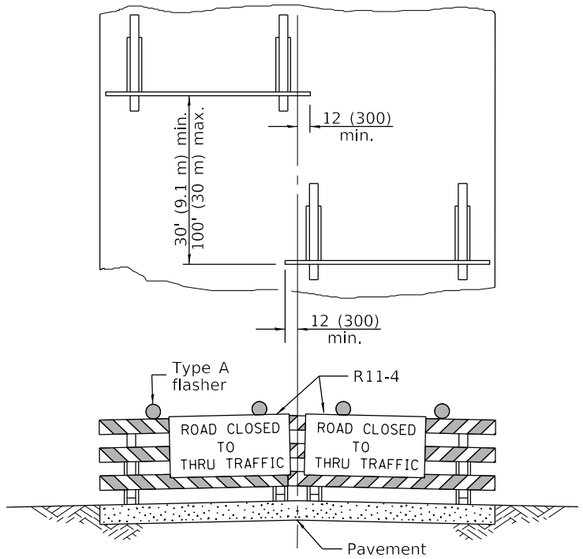
TYPICAL INSTALLATION

TEMPORARY RUMBLE STRIPS



ROAD CLOSED TO ALL TRAFFIC

Reflectorized striping may be omitted on the back side of the barricades. If a Type III barricade with an attached sign panel which meets NCHRP 350 is not available, the sign may be mounted on an NCHRP 350 temporary sign support directly in front of the barricade.



ROAD CLOSED TO THRU TRAFFIC

Reflectorized striping shall appear on both sides of the barricades. If a Type III barricade with an attached sign panel which meets NCHRP 350 is not available, the signs may be mounted on NCHRP 350 temporary sign supports directly in front of the barricade.

TYPICAL APPLICATIONS OF TYPE III BARRICADES CLOSING A ROAD

Illinois Department of Transportation

APPROVED January 1, 2019
ENGINEER OF SAFETY PROG. AND ENGINEERING

APPROVED January 1, 2019
ENGINEER OF DESIGN AND ENVIRONMENT

ISSUED 1-1-13

TRAFFIC CONTROL DEVICES

(Sheet 3 of 3)

STANDARD 701901-08

Christopher Woods
Vice President and Project Director
Phone: 312-269-8659
Christopher.L.Woods@sargentlundy.com

Sent via email

May 4, 2022
Revision 0

Engineering Proposal for the Kankakee Hydroelectric Facility Refurbishment Study

Mr. Daniel W. Jay
Superintendent
Kankakee Environmental Services Utility

Dear Mr. Jay:

Sargent & Lundy (S&L) is pleased to present to the City of Kankakee our proposal to support the initial efforts for refurbishing the hydroelectric facility by providing our services to help determine the initial feasibility and high-level cost to reestablish operations the Kankakee Hydroelectric Facility. The scope of our services is provided in the attached proposal along with a proposed schedule.

S&L has extensive experience with similar Owner's Engineer type services working on the refurbishment of assets at existing facilities. Based upon previous meetings with the City of Kankakee, it is our understanding that the City is interested in restarting the existing hydroelectric facility. In order to properly evaluate and plan the project, S&L will help the City organizie various condition assessements in order to determine a near term plan and high-level project costs to refurbish the existing facility. S&L is an excellent fit for this project based upon our qualifications and experience detailed in the attached proposal. Among the factors making us the ideal choice for this project are:

- **Owner's Engineer Experience.** S&L's approach to providing technical assistance to an Owner is to provide a competent and knowledgeable execution team to work closely with the Owner. We have the experience necessary to perform the tasks required for this effort with the City of Kankakee.
- **Dam and Hydroelectric Experience**. S&L has provided extensive engineering and consulting services for hydroelectric power projects, dams, dikes, and levies domestically and worldwide.
- **Full-Service Engineering Firm.** S&L is a full-service engineering firm with the capabilities and experience to support the City of Kankakee in all refurbishment phases.

- **Responsive and Relationship Driven Organization.** A key to S&L's overall success is our ability to provide responsive, high-quality, and innovative services that enable our clients to succeed in today's aggressive power markets. Because of our consistent quality and responsiveness, S&L's clients confidently rely on our experience and expertise to support their projects. They depend on the depth and diversity of our expertise, proven processes, and organizational flexibility to provide comprehensive engineering and design services. Our guiding corporate principles will direct our efforts in executing this work for City of Kankakee. These values are:
    - **Professionalism.** S&L's internal procedures and processes ensure we adhere to the highest standards of integrity and professional ethics while maintaining a culture of learning and knowledge sharing.
    - **Keeping Up with Industry.** S&L continually builds our industry leading technical expertise to ensure the best and most unbiased support for our clients -- *Keeping our clients' interests first and foremost.*
    - **Building Relationships.** S&L has never looked at clients as a one-time interaction. Our goal has always been focused on building long-term relationships with clients, through all business cycles and types of needs – *Building long term partnerships rather than transactional relationships.*

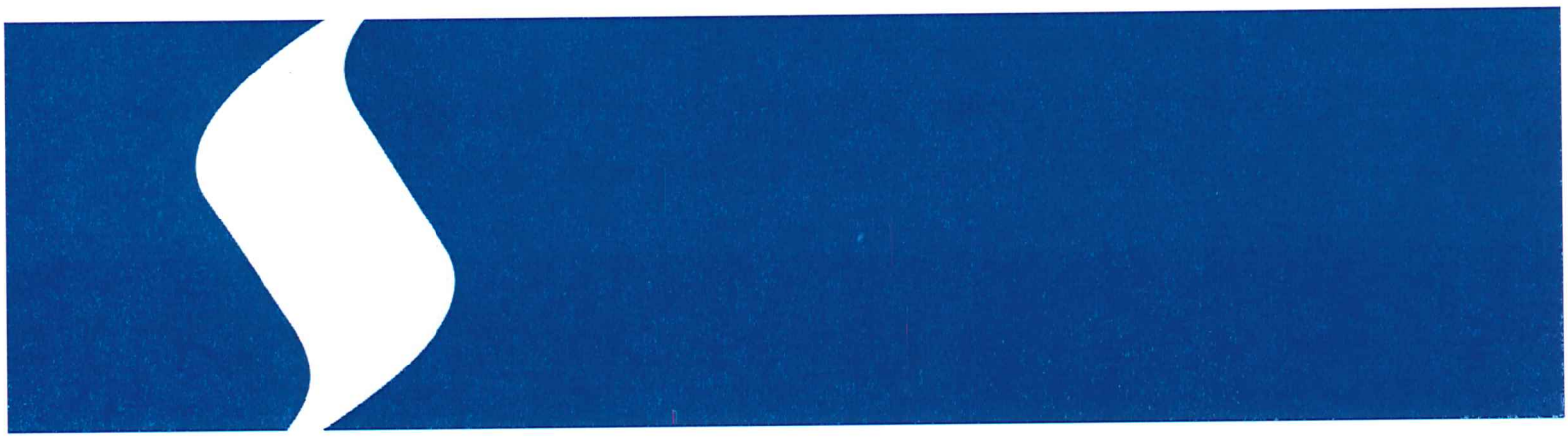
We appreciate the opportunity to be considered for this important work and would welcome the opportunity to discuss our proposal with City of Kankakee. If you have any questions regarding this proposal, please contact me at (312) 269-8659 or Mike Kuczynski, Program Manager, (847-840-9663) at any time.

Best Regards,

Chris Woods
Vice President & Project Director

Project Planning Study for Hydroelectric Facility Refurbishment

Prepared for City of Kankakee



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Chicago, IL 60603-5780 USA
312-269-2000
www.sargentlundy.com

Sargent & Lundy

CONTENTS

Sargent & Lundy

1. INTRODUCTION

Sargent & Lundy (S&L) is pleased to present this proposal to the City of Kankakee for providing professional services to aid the project planning process for refurbishing the Kankakee Hydroelectric Facility. The scope of our services is provided in the following sections along with a proposed schedule for the activities.

For all matters pertaining to this proposal, the primary Sargent & Lundy program manager will be:

Mike Kuczynski | Engineering / Project Manager
Sargent & Lundy
55 East Monroe Street | Chicago, Illinois 60603-5780
(312) 269-6995 (Office Phone)
(847) 840-9663 (Cell Phone)
mike.j.kuczynski@sargentlundy.com

2. SARGENT & LUNDY OVERVIEW AND QUALIFICATIONS

S&L offers the technical expertise, personnel, resources, and commitment to quality that are required to successfully provide a project planning study to determine project costs and project schedule for the refurbishment of the Kankakee Hydroelectric Facility.

S&L's proposal, as described herein and as supplemented with the enclosed exhibits, is organized to facilitate the City of Kankakee's evaluation of our qualifications in key areas directly relevant to the work:

Commitment to the Power Industry
Full-Service Engineering Firm
Dam and Hydroelectric Experience

S&L has a demonstrated track record of successfully delivering projects of similar scope and complexity. The S&L team will implement best practices, adhere to a culture of quality, and develop innovative approaches, all drivers in our commitment to exceed City of Kankakee's expectations.

2.1. COMMITMENT TO THE GLOBAL POWER INDUSTRY

S&L has provided comprehensive development, permitting, high-level consulting, engineering, design, procurement, construction management, and commissioning services for electric power generation and power delivery projects worldwide—**1,581 clients in 92 countries**—since our founding in 1891. We are focused on the power industry and are one of the oldest, largest, and most experienced power engineering companies in the United States. In addition to headquarters in Chicago, Illinois, S&L operates regional offices throughout North America and Internationally. We are continually ranked among the top five globally in power engineering by *Engineering News Record* magazine.

2.2. FULL-SERVICE ENGINEERING FIRM

S&L is a full-service engineering and consulting firm, with experience ranging from specialized studies, training, and technical evaluations, to complete engineering and program management. These services include, but are not limited to, complete detailed design; engineering, procurement, and construction (EPC) project support/services; design reviews; procurement; construction management; commissioning support; technology transfer; and assistance with construction and project financing.

Our role on a project can range from turnkey consortium or joint venture EPC architect-engineer (AE), lender's independent engineer, or Owner's Engineer. This ability to fulfill a variety of roles provides experience and insights that are critical to a project's success. S&L has provided all services related to

projects, including, but not limited to, review of commercial and technical aspects, evaluation of project designs, development of conceptual/preliminary design, development of cost estimates, economic analysis, environmental consulting, transmission and distribution design and consulting, construction management support, performance testing support, and construction contracts for lenders and investors considering proposed transactions.

2.3. QUALITY MANAGEMENT

S&L has always been committed to providing quality engineering and consulting services. In 1995, we took the proactive step of establishing a quality management system (QMS), based on ISO 9001 requirements (the figure below shows our current ISO certificate). The foundation of the QMS is the SL-QAP, Quality Policy, and Program Plan, which includes a set of implementing standard operating procedures or SOPs. Adherence to SL-QAP and SOPs is mandatory for all work companywide.

Our QMS has regularly been certified as meeting the requirements of ISO 9001:2015 by Perry Johnson Registrars, an internationally recognized ISO 9001 registrar. The most recent such audit reconfirmed that the execution of our QMS continues to meet or exceed the requirements of the ISO standard.

S&L's QMS promotes a customer focus to our work activities. Our project directors are specifically charged with establishing and maintaining effective working relationships between their respective clients and S&L. To that end, we encourage the active involvement and input of our clients over the life of the project. For example, our procedures emphasize the importance of sharing example deliverables to end-users, including engineering, systems engineering, installers, operations, and maintenance personnel. This proactive approach enables all stakeholders to have clear expectations early on as to the quality of the deliverables provided at the conclusion of a project. Our emphasis on working collaboratively with the client during project planning, execution, and close-out, has proven effective at identifying and resolving problems quickly.

Quality is embedded in S&L's approach to work and is synonymous with the technical excellence we apply to our clients' projects and the high value we place on meeting and exceeding their expectations.

2.4. DAM AND HYDROELECTRIC EXPERIENCE

Sargent & Lundy has provided extensive engineering and consulting services for hydroelectric power projects worldwide. We have included our relevant dam and hydroelectric project experience in **Attachment A**. Recent projects of note include:

- 2021-Present | Puerto Rico | Owner's Engineer for design build specification for Early Warning Systems for PREPA 20+ dams. Sargent & Lundy performed a site walkdown for dams throughout the island to document the components and features of the dams and locate Emergency Warning System (EWS) instrumentation. S&L will specify the EWS instrumentation, telecommunications systems, and assist PREPA with awarding and implementing the warning systems.

- 2018 | Peru | Conducted a due diligence review of Santander Hydro.
- 2018 | Quebec | Performed a due diligence review of three small hydro projects.
- 2018 | Quebec | Reviewed pertinent documents and performed walkdown to evaluate condition of existing reinforced concrete dam following significant grouting repairs. Formulated recommended improvements to enhance stability, ranging from removal or stabilizing upstream earthen slopes to installation of additional triaxial crack monitors. To restore structural integrity and reduce rate of water flowing through dam, a temporary mechanical seal was installed on the upstream face and epoxy grout was injected into multiple vertical cracks.
- 2018 | Peruvian Andes | Reviewed pertinent documents and performed walkdown to evaluate condition of existing reinforced concrete dam following significant grouting repairs. Formulated recommended improvements to enhance stability, ranging from removal or stabilizing upstream earthen slopes to installation of additional triaxial crack monitors. To restore structural integrity and reduce rate of water flowing through dam, a temporary mechanical seal was installed on the upstream face and epoxy grout was injected into multiple vertical cracks.
- 2011–2014 | 1,000+ MW | Turkey | Lender's engineering, including preconstruction due diligence and environmental review; construction and performance test monitoring; monitoring during startup; and operations monitoring. Sargent & Lundy has performed more than 70 construction monitoring and operations monitoring site visits.

3. PROJECT EXECUTION PLAN

3.1. INTRODUCTION

S&L will utilize our project execution experience in order to perform the project planning tasks requested by the City. We understand that City of Kankakee is interested in having S&L develop the scope of work, estimated costs, and anticipated schedule to refurbish the hydroelectric facility. S&L will work with turbine/hydro OEMs, inspectors and divers hired by the City to gather pertinent observations about the existing dam and powerhouse condition. With this information collected from the various specilists, S&L will also provide a high-level review of the interconnection system impact and estimate the cost of the interconnection into the grid. S&L will use the powerhouse, turbine, and dam inspector's reports and estimates or repair to identify what components need rehabilitation, replacement, and/or upgrades.

As a minimum, the conceptual project cost will be developed using the following inputs:

- S&L developed interconnect cost
- Vendor cost for turbine overhaul or replacement
- Balance of Plant (BOP) findings at the powerhouse, dam, and outlet works system by the inspectors
- Inspection report and estimated repairs from and underwater exam and dam superstructure by a dam specialist

3.2. KICKOFF MEETING

After contract award, S&L will schedule a kickoff meeting between the S&L and City of Kankakee project teams. The kickoff meeting will be conducted either in-person or can be arranged by teleconference with web sharing (e.g. MSTeams). The goal of the kickoff meeting will be to discuss the overall scope and schedule, establish document control procedures, and establish meeting frequency.

3.3. MEETINGS

S&L anticipates that a meeting will be necessary between S&L, City of Kankakee, and the inspectors during the project. To save on project costs, we have assumed that progress meetings will be conducted by teleconference with web sharing during the project execution. These meeting will be used to gather additional information from the City and ask questions based upon the assessment performed to date. S&L will develop a meeting agenda which will be issued prior to the meeting and will publish meeting notes at the conclusion of the meetings.

Due to the proximity of the dam and the S&L team in Chicago, we have included an allowance for two (2) site visits that will be coordinated with other project tasks to optimize the time.

3.4. PROPOSED ASSESSMENT

S&L will perform the following tasks as part of the assessment:

Request for Information – S&L will provide a bulletized listing of information required to perform the cost estimate, including areas of interest for the inspectors.

Interconnect Study – S&L will perform a high-level review of the interconnection system impact.

High Level Cost Summary – The S&L project team will utilize our in-house database to build a cost summary for the project with input from the inspectors and vendors hired by the City.

4. SCHEDULE

We propose to complete the work per the following schedule:

Activity	Timeline
Milestones	
Request for Information	Within 2 weeks
Kick-Off Meeting	Within 4 weeks
Initial S&L Walkdown	Within 8 weeks
Review of 3rd Party Turbine/BOP/Inspectors/Divers Reports and Repair Estimate for Refurbishments	Within 4 weeks after receipt of report(s)
Summary Report with Proposed Next Steps, Cost Ouline and Interconnect Recommendations	Within 8 weeks after receipt of the reports(s)

5. COMPANY STAFF RESOURCES AND PROJECT TEAM

5.1. PROJECT TEAM ORGANIZATION

As a full-service architect/engineering firm with a depth of resources and experience built on over 130 years of service to the electric utility industry, S&L is uniquely qualified to support City of Kankakee. As part of S&L's proven staffing philosophy, we will assign personnel to the core project team for entire project. This commitment ensures both continuity and efficiency because of the team members' in-depth knowledge of the project's progress, other team members' activities, and the City of Kankakee's standards and policies. The core team members will also strive to develop working relationships with their City of Kankakee counterparts in order promote enhanced communication and project efficiencies

The overall team structure depicted below illustrates the proposed staffing organization, including the lines of authority, responsibility, and communication in relation to the City of Kankakee and S&L's project direction and management. The core team of management and discipline lead personnel will be augmented with in-house specialists in relevant areas when required.

Each designated team member for the project was specifically chosen based on their proven experience, communication skills, and technical skills. Additional support from S&L's full complement of staff resources will be made available to the team, as necessary.

S&L's designated project director for the City of Kankakee assignments is Mr. Christopher Woods, a vice president of the firm. He will be accountable to the City of Kankakee as well as to the S&L ownership for the satisfactory performance of the project team. As a vice president of the firm, Mr. Woods enjoys the full support of S&L's executive management and will enlist the necessary resources to meet any contingencies or special issues that arise during the project.

The project manager, Mr. Mike Kuczynski, will be the City of Kankakee's point of contact for the overall management of the project. He will be responsible for the day-to-day management of the project's tasks in close collaboration with the entire project team, with the discipline leads reporting directly to him.

5.2. PROJECT TEAM

Energy & Industrial Group (EIG) Project Director – Chris Woods

Electric Grid Infrastructure Services (EGIS) – Brian Kelley

Program Manager – Mike Kuczynski

Dam Specialist – Dave Nielson

Dam Safety Advisor—David Nielson

Mr. Nielson has over 34 years of experience in geotechnical engineering and construction material testing services. He has successfully performed shallow and deep foundation design for projects in virtually all geologic settings and directed construction material quality control services in over 30 states and over 10 countries. Additionally, he has specified, directed, and performed over one-thousand subsurface exploration programs.

In addition to the design and consultation services on earthen embankments, ponds, lakes and landfills, he supervises and performs annual examination of eight dams, which are up to 8 miles in length with residential properties within 1/8 mile of the dam toe. He has inspected and/or consulted on hydro-electric dams in Peru, Armenia, Puerto Rico and Pakistan.

He provides our clients with an unusual perspective and experience. In addition to his design experience, he has worked as a construction laborer on the construction of a large coal fired power plant in Utah, geotechnical driller and geotechnical engineer with design work and quality control services in many of the major physiographic regions of the U.S.

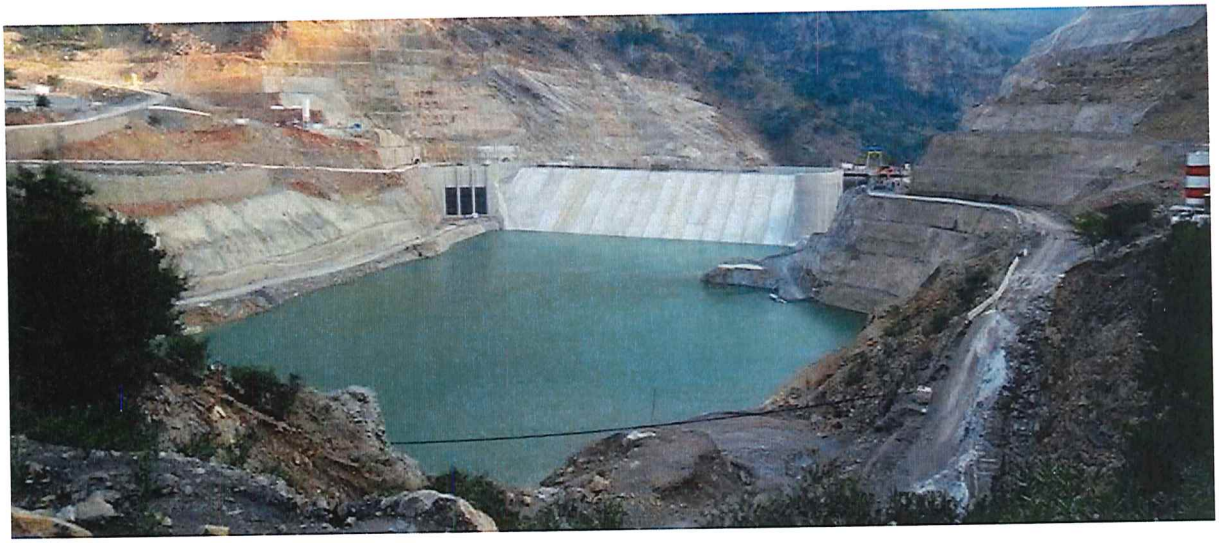
6. PRICING AND TERMS

6.1. PRICING AND COMMERCIAL TERMS

S&L proposes to perform this work on a fixed price basis in accordance with our attached standard terms and conditions. Our proposed fixed price for the scope of work outlined herein is **$19,500.** This total cost will be billed in accordance with the following milestones.

Activity	
Milestones	**Value**
RFI, Kick-Off Meeting and Initial S&L Walkdown	$5,000

Reviewed 3rd Party Turbine/BOP/Inspectors/Divers' Reports and Repair Estimate for Refurbishments	$5,000
High Level Interconnect Study	$5,000
Summary Report Issued for Use	$4,500



Hydroelectric

Sargent & Lundy has provided extensive engineering and consulting services for hydroelectric power projects worldwide. Recent hydroelectric power consulting and engineering service engagements are summarized below.

Selected Recent Project Experience

Confidential Client

2018 | *Pakistan* | Lender's technical, environmental, and social advisor for the potential financing of a new 90-MW hydroelectric project.

ContourGlobal

2018 | *Peru* | Conducted a due diligence review of Santander Hydro.

International Finance Corporation and other lenders, including: West LB, Akbank, & European Investment Bank (Project owner: Enerjisa Enerji Uretim A.S.)

- 2011–Present | 1,000+ MW | *Turkey* | Lender's engineering, including preconstruction due diligence and environmental review; construction and performance test monitoring; monitoring during startup; and operations monitoring. Sargent & Lundy has performed more than 70 construction monitoring and operations monitoring site visits.
  - **Adana, Göksu Tributary (Seyhan River)**
  - Köprü HEPP | 156 MW nominal capacity; 198 GWh annual generation
  - Kuşaklı HEPP | 20 MW nominal capacity; 22 GWh annual generation
  - Menge HEPP | 89 MW nominal capacity; 88 GWh annual generation

- Yamanlı II HEPP | 82 MW nominal capacity; 120 GWh annual generation
- **Adana, Zamantı & Göksu Tributaries (Seyhan River)**
- Kavşakbendi HEPP | 191 MW nominal capacity; 496 GWh annual generation
- Artvin (Çoruh River)
- Arkun HEPP | 245 MW nominal capacity; 540 GWh annual generation
- **Kahramanmaraş, Göksun Tributary (Ceyhan River)**
- Dağdelen HEPP | 8 MW nominal capacity; 23 GWh annual generation
- Hacınınoğlu HEPP | 142 MW nominal capacity; 304 GWh annual generation
- Kandil HEPP | 208 MW nominal capacity | 304 GWh annual generation
- Sarıgüzel HEPP | 102 MW nominal capacity; 243 GWh annual generation
- **Trabzon, Ögene & Haldizen (Şerah) Rivers**
- Çambaşı HEPP | 44 MW nominal capacity; 132 GWh annual generation

Hydro Fraser

2018 | Performed a due diligence review for Hydro Fraser.

Hydro Quebec

2018 | Performed a due diligence review of three small hydro projects.

Kallpa Generacion S.A.

2018 | Conducted a dam fissure evaluation of the Cerro del Aguila hydroelectric power plant.

Kaukauna Utilities

2018 | Advisory services to support client's potential acquisition of a small operating hydroelectric project.

Master Hydro (Pvt.) Limited

2018 | Technical and E&S due diligence for the Arkari Gol Hydroelectric Power Plant.

Additional Project Experience

American Electric Power

- 2015 | *Ohio, United States* | Independent engineering review of a small hydroelectric project.

Comisión Ejecutiva del Río Lempa (CEL)

- 2005–2007 | *El Salvador* | 180-MW hydroelectric plant. Sargent & Lundy performed owner's engineering services for a generator re-wind and other changes in order to increase two generators' power output by approximately 20%.

Confidential Clients

- 2016 | *Peru* | Asset acquisition due diligence services for two hydroelectric projects.
- 2016 | *Canada* | Technical consulting services for arbitration support for three hydroelectric projects.
- 2016 | *Midwestern United States* | Technical support and prepared EPC specification for the upgrade (from 3 MW to 12 MW) of a small hydroelectric project.

ContourGlobal

- 2017 | *Armenia* | Independent technical and environmental due diligence for the Vorotan Cascade project consisting of three HEPPs across four reservoirs situated on and adjacent to the Vorotan River in the southeastern part of Armenia. The three power plants have a total installed electrical capacity of 404 MW. Additional annual monitoring was requested as well.
- 2016 | *Peru and Central America* | Asset acquisition due diligence of three hydroelectric power plants, two in Peru and one in Central America, to support client.

Enerjisa Enerji Uretim A.S.

2017 | *Seyhan River Basin, Turkey* | Served as the Lender's Technical Advisor for the Doğançay HEPP project. Performed a technical review in cooperation with its partner, Fichtner GmbH & Co. KG. Also prepared a review of the environmental and social aspects of the projects. This review was designed to verify the project's compliance with the Equator Principles and the IFC's Performance Standards. The installed capacity of the powerhouse is 64 MW, which results in a power generation of about 168.98 GWh per year.

European Bank for Reconstruction and Development

- 2013 | *Turkey* | Served as the Lender's Technical Advisor and provided due diligence services for the Alpaslan II dam and HEPP project located on the Murat River in Turkey.

Inter-American Development Bank

- 2006 | *Ecuador* | Abanico 15-MW run-of-river hydroelectric project. Provided lender's engineering services, including preconstruction due diligence.

Kaukauna Utilities

- 2017 | *Wisconsin, United States* | Owner's engineer bid reviews to support relicensing of two existing small hydroelectric power plants.
- 2015 | *Wisconsin, United States* | Owner's engineer bid review to support relicensing of an existing small hydroelectric power plant.

Overseas Private Investment Corporation & International Finance Corporation

- 2013–2014 & 2016–2017 | Independent engineering review as Lender's Technical Advisor to support financing of acquisition and refurbishment of a hydroelectric project in Armenia. Sargent & Lundy performed a technical review of the project, including project financial statement, hydrological studies, refurbishment plan, interconnection, and key project contracts.

Total Fina Elf

- 2000 | *Argentina* | Piedra del Aguila 1,400-MW hydroelectric project. Provided a due diligence review for potential acquisition.

West LB

- 2004–2007 | *Mexico* | El Cajon 750-MW hydroelectric project. Sargent & Lundy performed lender's engineering services, including preconstruction due diligence and environmental review; construction and performance test monitoring; and monitoring during startup.

Power Facility Dams, Dikes, and Levees Experience

Coal, hydro, nuclear facilities

Sargent & Lundy

Facility	Type	Location	Scope Summary	Date
Braidwood Dresden LaSalle	Nuclear	United States (Illinois)	Annual walkdown examinations for the cooling lake impoundment and appurtenant structures at three nuclear power plants. Performs and documents the examinations in accordance with state and Nuclear Regulatory Commission (NRC) regulations and guidance.	1985-present (annual assessments)
Eagle Valley Harding Street	Coal	United States (Indiana)	Performed site exploration utilizing geotechnical borings and cone pentrometer test (CPT) soundings through existing dams to evaluate stability of embankments. Developed closure plans for eight existing and historic ash storage ponds. Supported closure plan work through numerous meetings with Indiana Department of Environmental Management (IDEM) and through public meetings, during which Sargent & Lundy gave presentations to inform the public of the plans. Process involved answering questions from environmental, non-governmental organizations (NGOs).	2015-2019
Cerro del Águila Dam	Hydroelectric	Peruvian Andes	Reviewed pertinent documents and performed walkdown to evaluate condition of existing reinforced concrete dam following significant grouting repairs. Formulated recommended improvements to enhance stability, ranging from removal or stabilizing upstream earthen slopes to installation of additional triaxial crack monitors. To restore structural integrity and reduce rate of water flowing through dam, a temporary mechanical seal was installed on the upstream face and epoxy grout was injected into multiple vertical cracks.	2018
Confidential Dams (2)	Hydroelectric	Pakistan	Independent engineering technical consultation to aid in development of two new hydroelectric dams in western Himalayas in northern Pakistan (North-West Frontier Province).	2018
Confidential Dams (3)	Hydroelectric	Armenia	Independent engineering technical due diligence review of dam safety report in support of financing. Facilities consist of three hydroelectric plants with four reservoirs and dams situated on and adjacent to river in southeastern Armenia. (Performed similar review of facilities in 2014.)	2018 2014

Power Facility Dams, Dikes, and Levees Experience

Coal, hydro, nuclear facilities

Sargent & Lundy

Facility	Type	Location	Scope Summary	Date
Jim Bridger	Coal	United States (Wyoming)	Evaluated storage requirements, evaporation losses, and site features for detailed site study considering six possible locations for large zero-liquid discharge reservoir for storage and disposal of flue gas desulfurization (FGD) wastewater and solids. Evaluations considered all design aspects, cost studies, staged vertical and horizontal expansions, and potential impacts to nearby public drinking water supply. All conceptual designs were developed to comply with the coal combustion residual (CCR) rule for operational flexibility and to mitigate closure costs.	2017-2018
Intermountain Power Project	Coal	United States (Utah)	Perform studies to aid in compliance with CCR rule and closure of FGD waste pond with difficult-to-dewater soluble crystals, bottom ash ponds, and other plant site impoundments.	2015-2018
St. Joseph River Dams (6)	Hydroelectric	United States (Indiana and Michigan)	Reviewed construction and maintenance documents and performed detailed walkdowns at six U.S. Federal Energy Regulatory Commission (FERC)-regulated hydroelectric dams on the St. Joseph River in Indiana and Michigan. Purpose was to assist owner in evaluating decommissioning options and to establish budgetary cost estimates to decommission the dams.	2015

Agreement No. 36785

GENERAL ENGINEERING SERVICES AGREEMENT

THIS AGREEMENT ("Agreement") for the performance of professional consulting and engineering services is executed and made effective as of May 4, 2022 between the City of Kankakee, a _____formed under the laws of the State of Illinois, ("Owner") and SARGENT & LUNDY, L.L.C., an Illinois limited liability company, ("Engineer").

IN CONSIDERATION of the covenants hereinafter set forth, the parties hereto mutually agree as follows:

1. SCOPE OF SERVICES

1.1. Engineer shall perform professional consulting and/or engineering services (the "Services") for compensation as specified in _____, which describe the scope of Services, the compensation, schedule and deliverables for the Services. In the event Owner uses a purchase order form or other similar Owner generated document to administer this Agreement, the use of such form shall be for convenience purposes only, and any typed provision in conflict with the terms of this Agreement and all preprinted terms and conditions contained in or on such forms shall be deemed stricken and null and void.

2. COMPENSATION AND TERMS OF PAYMENT

2.1 Engineer shall provide the Services on a fixed price basis. Included in the fixed price are salary and wage-related expenses such as sick and personal leave; vacation and holiday pay; home office overtime premium; health and retirement benefits; group life and Workers' Compensation Insurance premiums; and federal, state and local payroll taxes imposed on employers such as FICA, excise and unemployment taxes. Not included in the fixed price are state gross receipts, compensating, sale(s), excise, and other similar taxes and any non-U.S. taxes (including withholding requirements), duties, fees, tariffs, etc. which, if applicable, shall be reimbursed by or payable by the Owner. Also included in the fixed price are general office overhead expenses such as rent, light, stationery and supplies, the salaries and wages of certain personnel while engaged in the internal administration of Engineer, and profit.

2.2 Traveling expenses have been included in the fixed price.

2.3 Services of subcontractors and outside consultants will be invoiced at actual cost plus ten percent (10%) for handling.

2.4 Invoices will be submitted monthly as the Services progress or in accordance with a mutually agreed payment schedule, as appropriate. Payments shall be due within thirty (30) calendar days of receipt of an invoice. In the event of a dispute regarding any invoice, the undisputed amounts will be paid and Engineer

will be notified, in writing, of the amount(s) in dispute and the basis of the dispute within such thirty (30) calendar day period.

2.5 Engineer shall have the right, at its sole option, to suspend or terminate the Services, either in whole or in part, in the event that any undisputed amounts are not paid within forty-five (45) calendar days of receipt of an invoice. Further, Owner shall waive any claim against Engineer and agrees to indemnify, defend and hold Engineer harmless from and against any claims arising from such suspension or termination. Additionally, a finance charge shall be assessed on the unpaid balance for each day of a month that any undisputed amount remains unpaid beyond thirty (30) calendar days, using the prime rate for the last day of the prior month as reported in the Wall Street Journal, plus 5%. For example, if the published rate is 7%, the daily interest rate used for the following month will be (7% + 5%)/360 = 0.0333%.

3. GENERAL TERMS AND CONDITIONS

3.1. Engineer's sole obligation and Owner's exclusive remedy for any failure to perform its Services in accordance with generally accepted engineering practices, whether in tort or in contract, shall be to reperform those non-conforming Services so long as such failure is reported in writing to Engineer within thirty (30) calendar days following the discovery thereof, but in no event later than one (1) year from the date on which such Services were performed. After said one (1) year, Engineer shall have no remaining obligation to reperform any service or otherwise compensate Owner.

3.2. Engineer's review and/or translation and conversion of information, interface and documents prepared or provided by others shall in no way serve to transfer to Engineer the responsibility for the correctness and/or accuracy of the work performed by others. Further, Engineer shall have no liability for defects in the Services attributable to Engineer's reliance upon or use of data, design criteria, drawings, specifications or other information furnished by Owner or third parties retained by, or working with, Owner.

3.3. Engineer shall endeavor to prepare cost estimates, project time schedules, reports, or any other deliverable as accurately as possible based on current information and experience. It is expressly acknowledged that information and data provided by others, which may constitute the basis for these deliverables, has not been independently verified by Engineer. In addition, Owner acknowledges that the cost estimates, project schedules, reports, or any other deliverable generated by Engineer are time sensitive and changes in the underlying data, applicable codes, standards, and acceptable engineering practices, as well as the passage of time, may affect the accuracy of the deliverables provided to Owner.

3.4. Neither party shall be liable for any fault or delay caused by any contingency beyond such party's control such as wars, acts of terrorism, strikes, walkouts,

fires, pandemics, natural calamities, or demands or requirements of governmental agencies.

3.5. It is the desire of the parties to keep changes in the scope of Services at a minimum, but the parties recognize that such changes may become necessary and agree that they shall be handled as follows: Owner may initiate a change by advising Engineer in writing of the change believed to be necessary. Engineer shall prepare and forward to Owner a cost estimate of the change which shall include the adjustment to the total compensation and schedule applicable thereto. Owner shall advise Engineer in writing of its approval or disapproval of the change. If Owner approves the change, Engineer shall perform the Services as changed. Engineer may initiate changes by advising Owner in writing that in Engineer's opinion a change is necessary. If Owner agrees, it shall advise Engineer and, thereafter, the change shall be handled as if initiated by Owner.

3.6. This Agreement will be governed by and interpreted in accordance with the laws of the State of Illinois, without regard to its choice of law provisions. The words and phrases of this Agreement shall be given their ordinary English meaning. The laws of the State of Illinois govern all matters arising out of or relating to this Agreement. In an effort to resolve any conflicts relating to this Agreement or that arise during any phase of or following completion of the Services, Owner and Engineer agree to negotiate in good faith in reaching an equitable agreement. If a satisfactory agreement is not reached between the executives of both Parties after a reasonable time period (not to exceed sixty (60) calendar days after the date on which one Party notifies the other Party in writing of the dispute), Owner and Engineer agree that any dispute may be submitted to litigation for final resolution, unless the Parties mutually agree otherwise. Any Party bringing a legal action or proceeding against the other Party arising out of or relating to this Agreement submits to the exclusive jurisdiction of and shall bring the legal action or proceeding in the United States District Court for the Northern District of Illinois or in any court of the State of Illinois sitting in Chicago, Illinois.

3.7. Engineer may have portions of the Services performed by its affiliated entities (or their employees) or submit invoices from such affiliates, in which event Engineer shall be responsible for such Services and Owner shall look solely to Engineer as if the Services were performed by Engineer.

3.8. This Agreement may be terminated for the convenience of either party at any time by providing thirty (30) days prior written notice.

3.9. Notwithstanding anything to the contrary, in no event shall Engineer at any time be liable for special, incidental, punitive or consequential damages, including, but not limited to, loss of profits, loss of revenue, loss of use, loss of capital, claims of customers, cost of purchased or replacement power, or for any other loss of any nature, whether based on contract, tort, negligence, strict liability or otherwise, and arising from any cause whatsoever by reason of the Services rendered under this Agreement.

3.10. Any term or provision of this Agreement found to be invalid under any applicable statute or rule of law shall be deemed omitted and the remainder of this Agreement shall remain in full force and effect.

3.11. This Agreement gives no rights or benefits to anyone other than Owner and Engineer and does not create any third party beneficiaries to the Agreement.

IN WITNESS WHEREOF, the parties hereto have executed this Agreement as of the date and year first above written.

[OWNER]	SARGENT & LUNDY, L.L.C.
By: _____	By: _____
Name: _____	Name: _____
Title: _____	Title: _____
Date: _____	Date: _____

May 12, 2022

To : ESU Committee

Re : Fuel Bids

On Thursday 5/13 we opened fuel bids. Lowest combined total was $ 7.958 submitted by Baron Huot. They meet the local bidder definition under our ordinance. We recommend accepting their bid for the 2022-23 year.

BID TABULATION SHEET – CITY OF KANKAKEE, ILLINOIS
CITY OF KANKAKEE BULK FUEL SUPPLY BID 2022-2023

Date: MAY 12, 2022 **Time:** 11:00 A.M.

BIDDER	89 OCTANE	#2 PREMIUM	TOTAL				
Baron Huot Oil Company	3.741	4.217	7.958				
Petroleum Traders Corporation	3.751	4.2359	7.9869				
Gladieux Trading & Marketing Company	3.7383	4.2347	7.973				

Present:

Stacy Gall

Mary Rakowski

Deb Dahl

Bulk Fuel (gasoline & diesel) Bid Form 2022

City of Kankakee
304 s Indiana
Kankakee, Il. 60901

The vendor known as Baron-Hurt Oil Company agrees to provide the City of Kankakee with 89 octane gasoline and # 2 premium ultra-low (<15ppm) sulfur diesel fuel (with lubricity) for the period June 01, 2022 through April 30, 2023. Fuel will be purchased in a minimum order of 8,000 gallons. Usage for the 12 month period ending 12/31/18 was approximately 88,588 gal gasoline and 50,439 gal diesel. Winter blends to be provided upon request. Fuel may be delivered from 7am to 2:00 pm., Monday through Friday. Fuel will be delivered within 24 hours of order. Additionally, Diesel fuel must meet all the following criterion as established by the National Conference on Weights and Measures :

- Fuel injector cleanliness. Detergency of fuel must meet Cummins L-10 superior rating CRC Rating < 10.
- Cetane Engine Number. Fuel cetane number must have a minimum 47 engine rating based on ASTM D-613.
- Low temperature operability. Fuel must pass the ASTM D-2500 cloud point or ASTM D-4539 LTFT test.
- Thermal Stability. Fuel must achieve a minimum of 80% reflectance measurement using a green filter in the Octel-starreon F21-61 test @ 180 minutes @ 150 deg Celsius.
- Energy (BTU) content Fuel must contain at least 138,700 BTU based on ASTM D-240 test.

This agreement terminates 4/30/2023.

Fuel prices will vary and be tied to the OPIS low rack posting for Chicago in effect at the day / time of order. The vendor is responsible for familiarizing himself with the fuel industry and is expected to anticipate any additional expenses to be included in his bid. The prices quoted are delivered to 401 west Oak, Kankakee Il. and include all taxes and fees whether listed or not. Only the fees listed are subject to adjustment and only if the vendor can demonstrate an increase in that cost. No allowances will be made for increased transportation, insurance or other operating costs. Proof of the OPIS rate in effect at time of order to be e-mailed along with every invoice.

Payment will be made within 45 days of receiving an itemized invoice. Invoice must have a written acknowledgement that the product was received signed by the Head Mechanic or his designee.

The vendor is an independent contractor and not an employee of the city. By signing this form the bidder acknowledges his responsibility to provide insurance including liability and workman's' compensation. Upon notification of a successful bid and prior to supplying any product, the vendor will provide a certificate of insurance. This certificate will list the city as additionally insured and have a minimum of two million dollars general liability coverage. The vendor is expected to comply with all applicable state and federal law.

Bid forms must be completely filled out and incomplete forms may be cause to reject bids as non responsive to instructions. Prices quoted will be honored for 60 days after opening, regardless of whether the bid is awarded or not.

Fuel Type	89 Octane with up to 10 % alcohol	#2 premium ULS diesel fuel with lubricity
OPIS date 03/22/22	$ 3.355/ Gallon	$ 3.745/ Gallon
Illinois Motor Fuel Tax	$ .392 / Gallon	$ .467 / Gallon
Illinois L.U.S.T. Tax	$ .003 / Gallon	$ .003/ Gallon
Illinois Environmental Impact Fee	$ .008 / Gallon	$ .008 / Gallon
Vendor Expenses	$ -.017 / Gallon	$ -.006/ Gallon
Total Price this date	**$ 3.741 / Gallon**	**$ 4.217 / Gallon**
Winter formula to -15 deg f add	N/A	$ .035 / Gallon
Winter formula to –25 deg f add	N / A	$ _____ / Gallon

The City of Kankakee reserves the right to reject any and all bids deemed not in it's best interest and to waive technicalities.

By signing this bid form I certify that I am an authorized representative of the company listed, that I have familiarized myself with the conditions and can provide the product under the conditions listed.

Signed : Alex Vanbo Date 5 / 11 / 2022

Representing the company Baron-Hurt Oil Company.

Bulk Fuel (gasoline & diesel) Bid Form 2022

City of Kankakee
304 s Indiana
Kankakee, Il. 60901

The vendor known as Petroleum Traders Corporation agrees to provide the City of Kankakee with 89 octane gasoline and # 2 premium ultra-low (<15ppm) sulfur diesel fuel (with lubricity) for the period June 01, 2022 through April 30, 2023. Fuel will be purchased in a minimum order of 8,000 gallons. Usage for the 12 month period ending 12/31/18 was approximately 88,588 gal gasoline and 50,439 gal diesel. Winter blends to be provided upon request. Fuel may be delivered from 7am to 2:00 pm., Monday through Friday. Fuel will be delivered within 24 hours of order. Additionally, Diesel fuel must meet all the following criterion as established by the National Conference on Weights and Measures :

- Fuel injector cleanliness. Detergency of fuel must meet Cummins L-10 superior rating CRC Rating < 10.
- Cetane Engine Number. Fuel cetane number must have a minimum 47 engine rating based on ASTM D-613.
- Low temperature operability. Fuel must pass the ASTM D-2500 cloud point or ASTM D-4539 LTFT test.
- Thermal Stability. Fuel must achieve a minimum of 80% reflectance measurement using a green filter in the Octel-starreon F21-61 test @ 180 minutes @ 150 deg Celsius.
- Energy (BTU) content Fuel must contain at least 138,700 BTU based on ASTM D-240 test.

This agreement terminates 4/30/2023.

Fuel prices will vary and be tied to the OPIS low rack posting for Chicago in effect at the day / time of order. The vendor is responsible for familiarizing himself with the fuel industry and is expected to anticipate any additional expenses to be included in his bid. The prices quoted are delivered to 401 west Oak, Kankakee Il. and include all taxes and fees whether listed or not. Only the fees listed are subject to adjustment and only if the vendor can demonstrate an increase in that cost. No allowances will be made for increased transportation, insurance or other operating costs. Proof of the OPIS rate in effect at time of order to be e-mailed along with every invoice.

Payment will be made within 45 days of receiving an itemized invoice. Invoice must have a written acknowledgement that the product was received signed by the Head Mechanic or his designee.

The vendor is an independent contractor and not an employee of the city. By signing this form the bidder acknowledges his responsibility to provide insurance including liability and workman's' compensation. Upon notification of a successful bid and prior to supplying any product, the vendor will provide a certificate of insurance. This certificate will list the city as additionally insured and have a minimum of two million dollars general liability coverage. The vendor is expected to comply with all applicable state and federal law.

Bid forms must be completely filled out and incomplete forms may be cause to reject bids as non responsive to instructions. Prices quoted will be honored for 60 days after opening, regardless of whether the bid is awarded or not.

Fuel Type	89 Octane with up to 10 % alcohol	#2 premium ULS diesel fuel with lubricity
OPIS date 03/22/22	$ 3.355/ Gallon	$ 3.745/ Gallon
Illinois Motor Fuel Tax	$ +.3920 / Gallon	$ +.4670 / Gallon
Illinois L.U.S.T. Tax	$ +.0030 / Gallon	$ +.0030 / Gallon
Illinois Environmental Impact Fee	$ +.0080 / Gallon	$ +.0080 / Gallon
Vendor Expenses	$ -.0070 / Gallon	$ +.0129 / Gallon
Total Price this date	$ 3.7510 **/ Gallon**	$ 4.2359 **/ Gallon**
Winter formula to -15 deg f add	N/A	$ +.0200 / Gallon
Winter formula to –25 deg f add	N / A	$ *** / Gallon

***To achieve -25 a blend of Number 1 Diesel Fuel, to be priced off the Number 1 Opis Posting can be used

The City of Kankakee reserves the right to reject any and all bids deemed not in it's best interest and to waive technicalities.

By signing this bid form I certify that I am an authorized representative of the company listed, that I have familiarized myself with the conditions and can provide the product under the conditions listed.

Signed : Joseph Vanderpool Date 5 / 10 / 2022

Representing the company Joseph Vanderpool, Contract Sales Manager

THE CITY OF KANKAKEE
KANKAKEE COUNTY, ILLINOIS

RESOLUTION
NUMBER 22-__

A RESOLUTION AUTHORIZING THE EXECUTION OF A PROPOSAL FOR BULK FUEL SUPPLY BETWEEN BARON-HUOT OIL COMPANY AND THE CITY OF KANKAKEE

CHRISTOPHER W. CURTIS, Mayor
STACY GALL, City Clerk

MICHAEL PRUDE
CHERRY MALONE-MARSHALL
MICHAEL O'BRIEN
DAVID M. BARON
DAVID CRAWFORD
LARRY OSENGA
DANITA SWANSON
LANCE MARCZAK
VICTOR NEVAREZ
CARMEN LEWIS
KELLY JOHNSON
MICHAEL COBBS
P. CARL BROWN
REGINALD JONES

Aldermen

Published in pamphlet form by authority of the Mayor and City Clerk of the City of Kankakee on this _____ day of_____, 2022.

RESOLUTION NUMBER 22-_____

A RESOLUTION AUTHORIZING THE EXECUTION OF A PROPOSAL FOR BULK FUEL SUPPLY BETWEEN BARON-HUOT OIL COMPANY AND THE CITY OF KANKAKEE

WHEREAS, the City of Kankakee, Kankakee County, Illinois (the "*City*") is a home rule unit of local government pursuant to Article VII, Section 6, of the 1970 Illinois Constitution, and, except as limited by such section, it may exercise any power and perform any function pertaining to its government and affairs; and

WHEREAS, the Mayor and City Council have determined that it is necessary and in the best interests of the City Council and its residents to authorize the execution of a proposal for bulk fuel supply between Baron-Huot Oil Company and the City of Kankakee, attached hereto as Exhibit A ("Proposal"); and

WHEREAS, the Mayor and City Council find that it is in the best interests of the City to authorize the execution of a proposal for bulk fuel supply between Baron-Huot Oil Company and the City of Kankakee.

NOW, THEREFORE, BE IT RESOLVED by the Mayor and City Council of the City of Kankakee, Kankakee County, Illinois, in the exercise of its home rule powers, as follows:

Section 1: The recitals set forth hereinabove shall be and are hereby incorporated as findings of fact if said recitals were fully set forth herein.

Section 2: The City of Kankakee is hereby authorized to execute the proposal for bulk fuel supply between Baron-Huot Oil Company and the City of Kankakee.

Section 3: The Mayor of the City of Kankakee is hereby authorized to sign the proposal for bulk fuel supply between Baron-Huot Oil Company and the City of Kankakee, attached hereto as Exhibit A.

Section 4: This Resolution shall be in full force and effect from and after its passage and approval in the manner provided by law.

(*Intentionally left blank*)

ADOPTED by the Mayor and City Council of the City of Kankakee, Kankakee County, Illinois this ____ day of _____, 2022, pursuant to a roll call vote, as follows:

	YES	NO	ABSENT	PRESENT
PRUDE				
MALONE-MARSHALL				
O'BRIEN				
BARON				
CRAWFORD				
OSENGA				
SWANSON				
FAFORD				
NEVAREZ				
LEWIS				
JOHNSON				
COBBS				
BROWN				
MAYOR CURTIS				
TOTAL				

APPROVED by the Mayor of the City of Kankakee, Kankakee County, Illinois on this _ day of _____, 2022.

_____
CHRISTOPHER W. CURTIS
Mayor

ATTEST:

_____
Stacy Gall, City Clerk

STATE OF ILLINOIS)
) SS
COUNTY OF KANKAKEE)

CERTIFICATION

I, Stacy Gall do hereby certify that I am the duly qualified and elected Clerk of the City of Kankakee, Kankakee County, Illinois, and that as such Clerk I do have charge of and custody of the books and records of the City of Kankakee, Kankakee County, Illinois.

I do hereby further certify that the foregoing is a full, true and correct copy of Resolution No. _____, "**A RESOLUTION AUTHORIZING THE EXECUTION OF A PROPOSAL FOR BULK FUEL SUPPLY BETWEEN BARON-HUOT OIL COMPANY AND THE CITY OF KANKAKEE** " adopted and approved by the Mayor and Board of Trustees of the City of Kankakee, Illinois on _____, 2022.

IN WITNESS WHEREOF, I have hereunto affixed my hand and the Corporate Seal of the City of Kankakee, Kankakee County, Illinois this _____day of _____, 2022.

_____

Stacy Gall
City Clerk
City of Kankakee

EXHIBIT A

CITY OF KANKAKEE EST. 1854
Environmental Services Utility
401 West Oak Street
Kankakee, Illinois 60901
(815) 933-0472 Fax (815) 933-4336

May 12, 2022

To : ESU Committee

Re : Dump Body Replacements.

Attached is the relevant information from the bid packet and the bid tabulation. This represents the total price to build and install (1) Stainless Steel tandem axle truck body and (2) single axle truck bodies. There was only 1 bidder, Kankakee Truck, Kankakee IL. They are a local company. We have an extensive history with them and are confident in recommending acceptance of this proposal **Kankakee Truck to provide (3) dump bodies, installed as specified in the proposal dated 5/2/22. Total price $ 93,621.00**

Dennis Doyle

BID FORM

Note: This form shall be utilized by all Bidders. All parts shall be fully and accurately filled in and completed. The undersigned Bidder proposes to furnish all necessary labor, machinery, tools, apparatus, materials, equipment, service and other necessary supplies, and to perform and fulfill all obligations incident thereto in strict accordance with the contact documents.

Bidder Company Name: KANKAKEE TRUCK

Bidder Street Address: 785 EAST GATE

City, State, Zip: KANKAKEE IL. 60901

Phone # 815. 939. 2541

Email KANKAKEE TRUCK @ GMAIL.COM

BID AMOUNTS

Truck Type	Price for Body & Parts	Price For Labor	Total Price Per Truck
Tandem Axle (54,000 GVWR)	$25,888 W	$8813 W	$33,901 W
34,000 GVWR City vehicles	$21,900 W	$7960 W	$29,860 W
34,000 GVWR City vehicles	$21,900 W	$7960 W	$29,860 W

Total for 3 dump bodies & Labor $93,621 W

Authorized Bidder Signature: Dean Kleinert Print Name: DEAN KLEINERT

Date 5-2-22 Addendum #

Bid: – 3 Dump Bodies – Department of Public Works/ESU

Date: May 5, 2022 Time: 11:00 A.M.

BIDDER	TOTAL				
Kankakee Truck	33,901.00	Tandem Axle	Price Per Truck		
	29,860.00	34,000 GVWR	Price Per Truck		
	29,860.00	34,000 GVWR	Price Per Truck		

Present:

433U Smooth Side Dump Body

A continued tradition since the early 1900's

Tough & Versatile

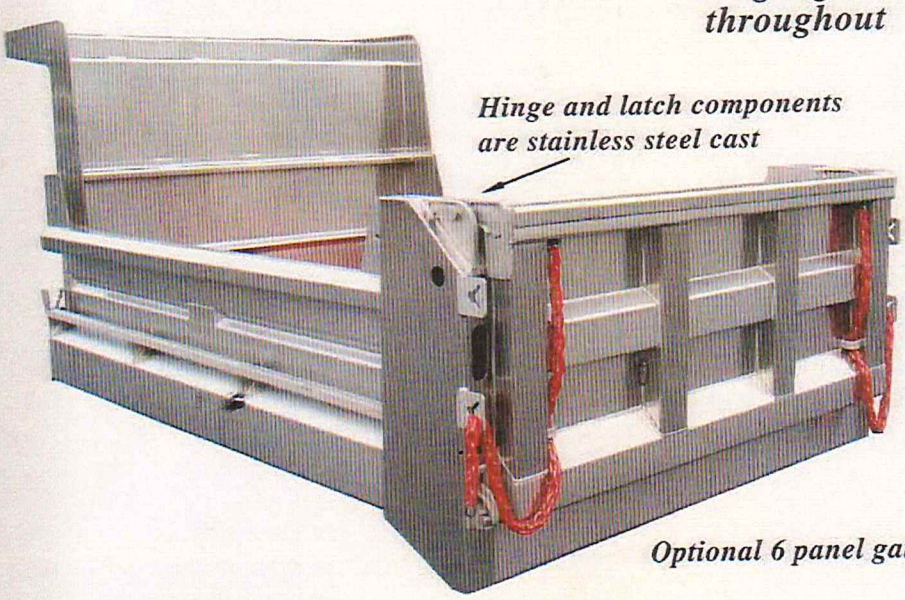
The Galion 433U smooth side body is especially designed for heavy-duty hauling requirements. It is well-suited for construction work, aggregate hauling and bucket loading. All units are built of tough high tensile steel to virtually outlast and outperform all others. Recommended for single axle underbody hoist applications.

NTEA NATIONAL TRUCK EQUIPMENT ASSOCIATION — Member —

POWDER COATED PRIMER

- *Horizontal pressed V-brace sides*
- *Material-shedding boxed top rails*
- *9" floor to side radius*
- *10 gauge construction throughout*

433U Smooth Side



Hinge and latch components are stainless steel cast

Optional 6 panel gate shown

- *Double acting tailgate*
- *3-panel tailgate standard*
- *Tarp-friendly upper gate hardware*
- *Full-depth rear corner posts*

Visit Galion and all affiliated companies on the world wide web.
www.galiongodwin.com

Galion®

City of Kankakee

Environmental Services Utility Employee Handbook 2022-2023

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City of Kankakee
Kankakee Environmental Services Utility

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EXEMPT
EMPLOYEE BENEFIT HANDBOOK 2022-2023 ~~2018 - 2019~~

SECTION 1.000 - GENERAL

1.100 APPLICABILITY

The benefits as described herein apply only to existing full time hourly exempt and salaried exempt employees of the Kankakee Environmental Services Utility ("Utility").

1.300 PRE-EMPLOYMENT PHYSICAL AND DRUG SCREEN

All prospective full time employees of the Utility must submit to a pre-employment physical and drug screen in accordance with City ordinances #90-63 and #90-62 respectively. Only those who satisfactorily complete this requirement can be hired.

1.400 ALCOHOL AND DRUG POLICY

All Utility employees are subject to the Alcohol and Drug Policy established by City Ordinance #99-1.

1.500 EMPLOYEE RESIDENCY

1.501 Residency within the City of Kankakee is not a condition of new employment.

~~Any employee hired under this condition of employment who fails to maintain residency, is subject to termination.~~

1.502 RESIDENCY INCENTIVE

The City of Kankakee will provide one-time down payment assistance in the amount of $2,500 to any Employee who currently does not own a residence in the City of Kankakee and who purchases and resides in a residence located within the boundaries of the City of Kankakee and who resides in said residence for a period of five years. In the event that the employee moves his residence from the purchased residence, the employee shall refund 100% of the down payment assistance if he/she moves to a residence outside the boundaries of the City of Kankakee during the first two years after the purchase and will re-pay 75% if he/she moves from the residence in third year, 50% if he/she moves in the fourth year and 25% if he/she move the fifth year.

Exempt employees who live in the City of Kankakee shall receive a $500 pro-ratable annual stipend after the member resides in the City for a period of one year. Said stipend shall be a separate stipend and not

added to base pay.

1.600 OTHER

1.601 ~~The Superintendent shall not release the final paycheck of any employee whose service is terminated through retirement, resignation, or for any other reasons until said employee has released all equipment furnished by the Utility for which the employee is responsible, including the employee's identification card.~~

1.602 ~~Utility employees' wages are subject to garnishment~~.

SECTION 2.000 – BENEFITS

2.100 VACATION ALLOWANCE

No vacation allowance will be allowed until an employee of the Utility has earned such vacation credit in accordance with the following provisions:

2.101 Any full-time employee of the Environmental Services Utility for less than seven (7) years shall accrue vacation time at the rate of 3.08 hours bi-weekly, for a total of 80 hours per year; any full-time employee of the Environmental Services Utility for seven (7) years but less than twelve (12) years shall accrue vacation time at the rate of 4.62 hours bi-weekly, for a total of 120 hours per year; any full-time employee of the Environmental Services Utility for twelve (12) years but less than twenty (20) years shall accrue vacation time at the rate of 6.15 hours bi-weekly, for a total of 160 hours per year; any full-time employee of the Environmental Services Utility for twenty (20) years or more shall accrue vacation time at the rate of 7.69 hours bi-weekly, for a total of 200 hours

~~2.101 Any full-time employee in the service of the Utility for less than seven (7) years shall accrue vacation time at the rate of 6.67 hours per month; any full-time employee in the service of the Utility for seven (7) years but less than twelve (12) years shall accrue vacation time at the rate of 10 hours per month; any full-time employee in the service of the Utility for twelve (12) years but less than twenty (20) years shall accrue vacation time at the rate of 13.33 hours per month; any full-time employee in the service of the Utility for twenty (20) years or more shall accrue vacation time at the rate of 16.67 hours per month.~~

2.102 Requests for vacation time must be made to employee's supervisor on a Leave Request form at least one (1) week before the requested vacation time. In all cases the Superintendent shall have the right to exercise discretion in the approval of all vacation requests. This provision shall in no way interfere with the right of an employee to take his vacation during any other time of the year that he may request, providing that it meets with the approval of the Superintendent.

2.103 All earned vacation time must be taken within one (1) year of the time it is

earned unless an employee is directed otherwise or such a carryover is requested in writing and is approved by the Superintendent. In such cases, vacation credit may be carried over for a limited time period.

2.104 Any employee whose employment is terminated for any reason shall be paid for all accrued, unused vacation time to the date of termination. This compensation shall be paid at the time the employee receives final pay from the Utility.

2.105 When an authorized holiday falls within an employee's vacation period, he shall be compensated in time for this day at a later date with the approval of their Supervisor.

2.106 Vacation time shall be taken in periods of not less than four (4) hours.

2.200 HOLIDAYS AND PERSONAL LEAVE

2.201 Paid holidays shall be granted to all Utility employees covered by Agreement as prescribed annually by the Kankakee City Council as follows:

New Year's Day
Martin Luther King Day
Good Friday
Memorial Day
Juneteenth
Independence Day
Labor Day
Veterans Day
Thanksgiving Day
Day following Thanksgiving Day
Christmas Eve Day
Christmas Day

2.202 The City shall grant three (3) days paid leave annually on May 1st of each

year for an employee to transact personal business. Personal leave must be approved by the employee's supervisor. Unused personal days at the end of the fiscal year (April 30th) may not be carried over into the following fiscal year.

2.300 SICK TIME ALLOWANCE

All sick leave must be earned before any employee may draw upon this privilege. Sick leave must be used only in cases where the employee is unable to report to or remain at work because of sickness.

2.301 Sick leave credit shall commence after the first month of employment and shall continue to accumulate at the rate of one (1) day for each month of service. No employee will be eligible for sick leave with pay until the first full calendar month of his employment is completed. Employees hired as part-time will not be eligible for sick leave pay. Maximum accumulation of sick leave is 120 days.

2.302 All unused sick days at the end of each fiscal year in excess of employees maximum cap shall be paid to the employee at the rate of one day for every one day earned, provided that the employee has not used any sick time for the full 12 months during the previous year. If sick time was used, within the previous year, sick days at the end of each fiscal year in excess of employee's maximum cap shall be paid to the employee at the rate of one day for every one day earned. The rate of pay for the excess hours shall be paid at the employee's hourly rate as of April 30th of that year.

2.303 Sick leave and vacation leave will continue to accumulate during the period that an employee is off due to sickness or due to occupational injury or illness. Sick leave and vacation leave will not be accumulated during a leave of absence or while on ordinary or non-occupational illness or injury related disability.

2.304 Employees should notify their immediate supervisor not later than one-half hour after starting time of their inability to report. If an employee has been absent for three (3) working days due to sickness, the employee may be required to provide a Doctor's Certificate to verify the illness and to certify that they are fit for duty.

2.305 Where sick leave exceeds the maximum allowable under these rules, the excess will charged to vacation leave. In no case shall accumulated sick leave be used for vacation leave.

2.306 No employee will be permitted to use any accumulated sick leave immediately prior to retirement except for actual illness at that time. After

termination of employment with the Utility the employee will be paid for unused accumulated sick time. Maximum accumulation of sick leave is 120 days.

2.307 Employees proven to be abusing sick leave privileges may be suspended up to ten (10) working days without pay by the Superintendent. If an employee is suspended for such cause on two separate occasions, employees may be discharged.

2.308 Planned sick leave is to be taken in increments of four (4) hours or more.

2.309 After termination of employment with the Utility the employee will be paid for unused accumulated sick time.

2.400 FUNERAL LEAVE

Funeral leave up to three (3) calendar days shall be given to an employee in the case of death in the immediate family (father, mother, spouse, child, sister, brother, mother-in-law, father-in-law, grandchildren, brother-in-law, sister-in-law, grandparents, grandparents-in-law, step-children, aunts, uncles, aunts-in-law, uncles-in-law and legal guardians and step-parents). This leave may be extended on a day-to-day basis at the discretion of the Superintendent. Funeral leave shall not be deducted from sick time allowance or vacation.

2.500 INSURANCE

All full-time employees of the Utility shall be eligible for coverage in the City's group insurance plan and participation in the City's Section "125" cafeteria plan, subject to a ninety (90) day waiting period after employment. The group insurance plan shall include life insurance and medical care benefits for qualified dependents. The Utility shall pay for eighty percent (80%) of the premium for eligible employee and dependents. Each employee shall pay twenty percent (20%) of the premium for insurance.

The Utility shall pay 80% of the health insurance premium for any employee and dependents, immediately following the employee's termination of employment resulting from employee's declared intent to retire from the Utility/City, prior to age 65, according to the following schedule (or employee's age 65, whichever comes first).

15 years uninterrupted employment with City: for 1 year
17 years uninterrupted employment with City: for 2 years
20 years uninterrupted employment with City: for 3 years

The retired employee must be fully vested in IMRF and remain eligible to draw a retirement benefit from IMRF for the duration. The retired employee shall pay twenty percent (20%) of the premium for insurance directly to the City.

2.501 An employee injured in the line of duty or who incurs an illness arising out of and in the course of employment shall receive benefits as specified in the Illinois Workmen's Compensation Law or the Illinois Occupational Diseases as amended. If because of such injury or illness an employee is unable to return to work at the expiration of the maximum period of entitlement under the Illinois Workmen's Compensation Law or the Illinois Occupation Law as amended, they may at their option use all accumulated or bank sick leave and vacation credits before being removed from the payroll and/or before being transferred to disability benefits available under the pension or retirement plan or plans having application.

2.600 PENSION

All full-time employees of Utility are and shall remain covered by the pension plans of the Illinois Municipal Retirement Fund and the Social Security Administration.

2.700 EMPLOYEE ASSISTANCE PROGRAM (EAP)

All full-time Utility employees and their immediate family members may utilize the "Employee Assistance Program" services established by City Ordinance #90-61.

2.800 FAMILY MEDICAL LEAVE ACT

All qualified Utility employees are entitled to Family Medical Leave Act benefits in accordance with the policy set forth in Executive Order No. 94-1.

Policy Statement:

1. All qualified Utility employees are entitled to 12 weeks per year of Family and Medical Leave in accordance with the Family and Medical Leave Act (FMLA).

2. The annual twelve (12) week leave period will be without pay, subject to the following:
   Any then accrued sick time available to the employee must be utilized concurrently and consecutively beginning with the first workday of the family leave utilized, and each and every consecutive workday thereafter for leave requested and taken under FMLA. Any time, other than vacation, taken prior

to a request for family leave, will be charged against the annual family leave available for the year in question. The employee will receive compensation in accordance with Utility policy and/or union contracts for such accrued time used during any FMLA taken.

3. The Utility will continue the employee's coverage under the City's group medical insurance plan during the leave period; however, any employee contribution to coverage will be the employee's responsibility.

4. When on unpaid leave, any payroll deductions for other insurance, credit union, IMRF contributions, dues ~~etc~~etc., are the employee's responsibility.

5. Vacation and sick time will not accrue during periods of unpaid leave.

6. Employees may qualify for IMRF "temporary disability benefits" during their leave period. It is the employee's responsibility to submit the proper documentation to IMRF to apply for this benefit.

2.900 AMBULANCE SERVICE

Employees or dependents who reside within the City of Kankakee shall be entitled to the use of the paramedic services of the City of Kankakee from any location within the City of Kankakee at no charge to said employee or dependent, provided, however, that the employee shall seek reimbursement from his group insurance coverage where applicable for ambulance service and shall assign the benefits thereof to the City of Kankakee. Failure to so assign the benefits of said group insurance shall cause a forfeiture of the benefits conferred hereunder and the employee and his dependent, as the case may be, shall be liable for the reasonable value of the service rendered by the City of Kankakee.

SECTION 3.000 - COMPENSATION

All compensation will be in accordance with the salary schedules and job titles established from time to time by the Superintendent. Compensation adjustments will be based on the established program and approved by the Superintendent.

3.100 OVERTIME

3.101 The work week for hourly exempt employees shall be defined by their Supervisor and/or the Superintendent. Hourly exempt employees shall be

compensated at one and one-half times their hourly rate for all authorized or scheduled hours of work in excess of forty (40) hours per work week or eight (8) hours per day. This is subject to agreed upon alternatives.

Vacation time, holidays, sick time, funeral leave, suspension, leave of absence, and workman's compensation injuries shall be excluded from hours worked for the purpose of overtime pay calculation.

~~3.102 The rate of compensation for overtime pay shall be the sum of:~~

~~1. The base bi-monthly salary rate,~~
~~1. The bi-monthly incentive pay divided by 86.666~~

~~Any overtime pay due will be paid on a bi-monthly basis as follows:~~

~~Overtime earned 1st through 15th: paid on first paycheck of the following month.~~

~~Overtime earned 16th through end of the month: paid on second paycheck of the following month.~~

SECTION 4.000 - MISCELLANEOUS

4.100 TRAVEL EXPENSES

Travel expenses for all employees' attendance at meetings, seminars, training and conferences are reimbursable subject to the following guidelines:

1. Travel must be authorized by the employee's Supervisor and/or the Superintendent.
~~1.~~2.
2. Approved expenses include: meals, car rental, taxi, limo, parking, tolls, registration, lodging, airfare (coach accommodations).

3. An available Utility vehicle is to be used for travel. If unavailable, personal car mileage at the current Internal Revenue Service rate is allowed.

4. All expenses must be accompanied by receipt to be reimbursable and an expense report must be filled out.

5. Advance payment of estimated expenses may be arranged.

4.200 TUITION REIMBURSEMENT

Employees are encouraged to continue their education and training so as to enhance their job performance and improve the overall effectiveness of the Utility in completion of its duties.

To this end, employees may request reimbursement of tuition, registration fees, books and supplies which are needed and are defined as such in the course syllabus for educational and training courses taken.
Eligibility for reimbursement is subject to the following conditions:

1. The employee must request approval from the Superintendent for reimbursement prior to enrollment in the course or program.

2. Evidence of successful course completion (a passing grade of "C" or better) and a receipt for the course fee and proof of required books and supplies must be presented prior to reimbursement.

3. A maximum reimbursement of $900.00 per fiscal year per employee shall be allowed, but an employee may accumulate two years reimbursement for use during the second of the said two years.

4.300 VEHICLE USE

The Utility will acquire and maintain various vehicles as necessary to perform its function. In order to allow for more efficient and effective performance of duties by Utility staff, certain vehicles will be assigned to individual employees from time to time. Use of these vehicles is subject to the following conditions:

1. Utility vehicles are to be operated only by properly licensed Utility employees.

2. Utility vehicles are to be used solely for the performance of Utility business. Use of the vehicles for personal business is not authorized.

3. Utility vehicles should be used whenever possible when traveling on Utility business out of town.

4. Fuel for vehicles should be obtained from the City pumps at Environmental Services – Public Works division or with Utility credit cards when out of town. Use of cash or personal gas credit cards should be avoided.

4.400 NEPOTISM

The Utility will not employ more than one member of a family in a full time position. For purposes of this policy, "family" is defined as husband or wife, parent or grandparent, brother or sister, or child of an employee, or any such relatives of an employee's present spouse.
This policy does not apply with regard to temporary employment of students and "summer help".

4.500 EEOC/AA

Implementation of any and all of the provisions of this handbook will be subject to and consonant with all federal and/or state law or agency requirements with respect to equal employment opportunity, discrimination, affirmative action and related matters.

4.600 EXEMPT EMPLOYEE COMPLAINT PROCEDURES

The purpose of these procedures is to provide guidance to the Exempt Employees of the Utility regarding the proper sequence to follow to resolve complaints they may have. It must be understood that any complaints presented under these procedures must be clearly "work related" and significant in nature. As a result, both management and the exempt personnel are obligated to give all issues raised due consideration in a timely, meaningful response.

1. Generally, each employee has the right and obligation to make the specific details of any complaint known to their immediate supervisor. The supervisor should then either take appropriate corrective action to resolve the issue and/or provide an explanation to the employee.

2. If the complaint is not adequately resolved as described above, the details should be put in writing and submitted to the Superintendent for consideration. A meeting will then be held between the employee, immediate supervisor, ~~and~~ Superintendent and Human Resources.

Note:

In specific cases such as theft, improper conduct, harassment, etc. involving the immediate supervisor, the employee should contact the Superintendent.

LIST OF JOB TITLES CLASSIFIED AS EXEMPT EMPLOYEES

HOURLY:

TITLE
ADMINISTRATIVE SPECIALIST
COMPUTER SPECIALIST (Police Department)
~~DIRECTOR OF TECHNICAL SERVICES (POLICE DEPT)~~

SALARIED:

TITLE
~~ADJUDICATION DIRECTOR~~
~~ASSISTANT CITY ATTORNEY~~
ASSISTANT COMPTROLLER
HUMAN RESOURCES SPECIALIST
UTILITY / GIS OPERATIONS MANAGER
LABORATORY OPERATIONS MANAGER
PUBLIC WORKS OPERATIONS MANAGER
SERVICE DIRECTOR
NETWORK ADMINISTRATOR/COMPUTER SPECIALIST
TECHNICAL SERVICES OPERATIONS MANAGER~~ADMINISTRATIVE MANAGER~~

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SUPERVISORY:

TITLE

SUPERINTENDENT
ASSISTANT SUPERINTENDENT

Note: The contents of this handbook are not applicable to ESU staff whose employment is governed by an "Employment Agreement" approved by the Mayor.

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